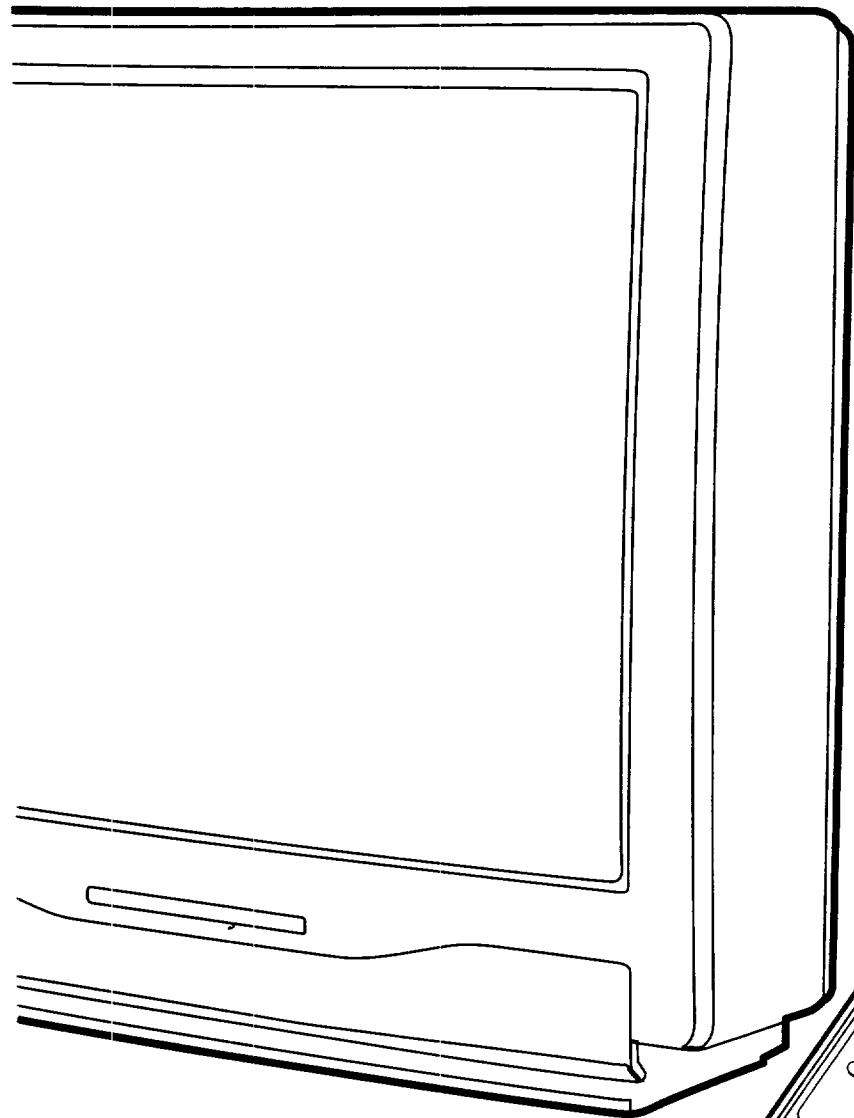
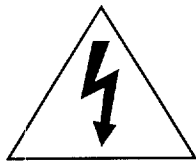


Television Owner's Guide



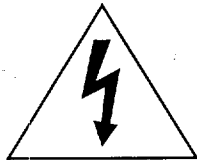


CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

► **Warning:**

Don't leave stationary images, such as those generated from stock market reports, video games, station logos, or TV displays, on-screen for more than 10 minutes. Still patterns such as these can scar the TV, causing permanent damage to the picture tube.

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION:

TO PREVENT ELECTRIC SHOCK HAZARD, DO NOT USE THIS UNIT'S (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

NOTE TO CATV SYSTEM INSTALLER:

THIS REMINDER IS PROVIDED TO CALL THE CATV SYSTEM INSTALLER'S ATTENTION TO ARTICLE 820-40 OF THE NEC THAT PROVIDES GUIDELINES FOR PROPER GROUNDING AND, IN PARTICULAR, SPECIFIES THAT THE CABLE GROUND SHALL BE CONNECTED TO THE GROUNDING SYSTEM OF THE BUILDING, AS CLOSE TO THE POINT OF CABLE ENTRY AS PRACTICAL.



Important Safeguards 3

Preface: Welcome to Mitsubishi 5

 Summary of Special Features 6

 Unpacking Your TV 7

 What's in Each Chapter 8

 Some Conventions Used in this Guide 9

Chapter 1: Getting to Know Your TV 11

 Overview of the Control Panel 12

 Overview of the Remote Control 14

 Getting ready to use the remote control 14

 Remote control buttons and functions 16

Chapter 2: Connecting Your TV 21

 Overview of the Back Panel 22

 Basic Connections 24

 TV + antenna or cable without a
 decoder box 25

 TV + cable with a decoder box 26

 TV + separate UHF and VHF antennas 27

 TV + VCR + antenna or cable without
 a decoder box 28

 TV + VCR + cable with a decoder box 31

 TV + audio system 34

Chapter 3: Operating Your TV 35

 Getting Started 36

 Adjusting the color purity 37

 Using the remote control to operate cable boxes
 and other brands of VCRs 38

 Turning the TV on/off 41

 Selecting the input source 42

 Changing channels 43

 Understanding the on-screen menus 46

 Setting the clock 47

 Memorizing channels 49

 Adding and deleting channels 50

 Renaming the input 51

 Selecting the menu language 52

 Using video mute 53

 Adjusting the sound 54

 Adjusting the picture 56

 Using the closed caption decoder 57

Using the Advanced Features	59
Setting the timer	60
Using the parental lock	61
Using the Super Quick View tuning	65
Selecting an advanced PIP function	66
Chapter 4: Using the Special Features	67
Understanding the On-Screen Displays	68
Using the Off-Timer	69
Setting the off-timer	70
Changing or canceling the off-timer	71
Using the Advanced Picture-in-Picture (PIP) Modes	72
Activating the PIP image	73
Selecting the source of the PIP	74
Changing channels while using the PIP modes	74
Exchanging the PIP image and the main image	75
Moving the PIP image	75
Freezing the PIP image	76
Using the Snap-shot feature	77
Using the Replay feature	78
Chapter 5: Troubleshooting	79
Caution and Care	82
Calling for Service	83
Appendix: Procedure for Bypassing the Parental Lock	85
Index	87
Warranty	Inside Back Cover

IMPORTANT SAFEGUARDS

PLEASE READ ALL THESE INSTRUCTIONS REGARDING YOUR TV RECEIVER AND RETAIN FOR FUTURE REFERENCE. FOLLOW ALL WARNINGS AND INSTRUCTIONS MARKED ON THE TV RECEIVER.

1. Read Instructions
All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions
The safety and operating instructions should be retained for future reference.
3. Heed Warnings
All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions
All operating and use instructions should be followed.

► **Warning:**

5. Cleaning
Unplug this TV receiver from the wall outlet before cleaning. Do not use liquid or aerosol cleaners to clean your TV. Use a damp cloth for cleaning. Cleaners may permanently damage your screen. Do not clean your TV when it is on.

6. Attachments
Do not use attachments not recommended by the TV receiver manufacturer as they may cause hazards.
7. Water and Moisture
Do not use this TV receiver near water — for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.
8. Accessories
Do not place this TV receiver on an unstable cart, stand, tripod, bracket, or table. The TV receiver may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the TV receiver. Any mounting of the appliance should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



9. Ventilation
Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the TV receiver and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the TV receiver on a bed, sofa, rug, or other similar surface. This TV receiver should never be placed near or over a radiator or heat register. This TV receiver should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
10. Power Sources
This TV receiver should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your appliance dealer or local power company. For TV receivers intended to operate from battery power, or other sources, refer to the operating instructions.
11. Grounding or Polarization
This TV receiver is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
12. Power-Cord Protection
Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
13. Lightning
For added protection for this TV receiver during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the TV receiver due to lightning and power-line surges.

14. Power Lines

An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

15. Overloading

Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

16. Object and Liquid Entry

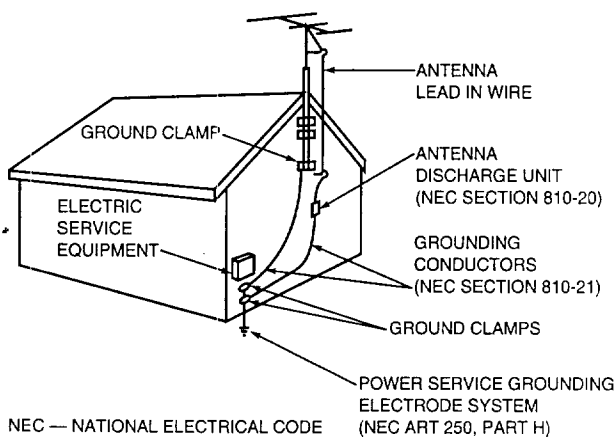
Never push objects of any kind into this TV receiver through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the TV receiver.

17. Outdoor Antenna Grounding

If an outside antenna or cable system is connected to the TV receiver, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges.

Section 810 of the National Electrical Code, ANSI/NFPA No.70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

EXAMPLE OF ANTENNA GROUNDING



18. Servicing

Do not attempt to service this TV receiver yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

19. Damage Requiring Service

Unplug this TV receiver from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- When the power-supply cord or plug is damaged.
- If liquid has been spilled, or objects have fallen into the TV receiver.
- If the TV receiver has been exposed to rain or water.
- If the TV receiver does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the TV receiver to its normal operation.
- If the TV receiver has been dropped or the cabinet has been damaged.
- When the TV receiver exhibits a distinct change in performance — this indicates a need for service.

20. Replacement Parts

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

21. Safety Check

Upon completion of any service or repairs to this TV receiver, ask the service technician to perform safety checks to determine that the TV receiver is in safe operating condition.

►Warning:

Do not leave stationary images, such as stock market reports, video games, station logos, or the TV's displays, on-screen for more than 10 minutes. Still patterns such as these can scar the TV, causing permanent damage to the picture tubes.



Congratulations on your purchase of this Mitsubishi TV. Your TV is designed for superb viewing pleasure as well as continued reliability.

To familiarize you with your TV and owner's guide, we suggest that you read through the preface, which provides the following important information:

- ◆ **Summary of Special Features**
- ◆ **Unpacking Your TV**
- ◆ **What's in Each Chapter**
- ◆ **Some Conventions Used in this Guide**

Mitsubishi has strived to create your TV so that it will bring you years of viewing enjoyment. Similarly, your owner's guide is designed with a "user friendly" philosophy that will help you take advantage of all of your equipment's features.

Once again, thank you for selecting our product and welcome to Mitsubishi!

◆ Summary of Special Features

Your top rated Mitsubishi TV delivers:

- **181-Channel Capacity** --- programs up to 181 channels, ensuring your continued viewing pleasure as cable services continue to expand.
- **Two-Speaker Sound System** --- a special speaker system that produces clear stereo sound.
- **Expanded Sound Capability** --- allows you to connect the TV to an external audio system for enhanced listening pleasure.

In addition to the standard features found on most advanced TVs, Mitsubishi is proud to offer the following distinctive features:

- **Remote Control with TV/VCR/CABLE Function** --- uses a single remote control transmitter for the television, certain Mitsubishi VCRs, and also some VCRs and cable boxes from other manufacturers.
- **On-Screen Displays** --- appear whenever you adjust your TV, showing you the status of your TV's various functions.
- **On-Screen Menu** --- simplifies the television's features with easy to follow instructions.
- **Closed Caption Decoder** --- decodes hidden text information included with TV shows and displays the text on-screen.
- **Extended Data Services** --- (also known as "XDS,") allows broadcasters to supply you with channel information, program information, and the time of day. You can display this information on-screen.
- **Picture-in-Picture Mode** --- allows you to view two different sources at the same time.

Each of these features will be explained in more detail in Chapter 3, "Operating Your TV," and Chapter 4, "Using the Special Features."

◆ Unpacking Your TV

What you will find

As you unpack your new TV, please check to be sure that along with the TV, the following items are included:

- an owner's guide containing a warranty,
- a registration card,
- a remote control transmitter, and
- a set of two AA size batteries for the remote control.

A few suggestions

Before you hook up your new TV, please take a few minutes to:

- ① Complete the registration card. The registration card asks for the TV's serial number, which you'll find on the back of the unit.
- ② Keep the box and packing materials for future use.
- ③ File your sales receipt.
- ④ Place the TV on a stable surface with sufficient lighting to do the hook-up.

◆ What's in Each Chapter

Here's what you will find in this owner's guide:

Chapter 1, "Getting to Know Your TV," introduces you to the location and functions of the buttons and controls of your TV.

Chapter 2, "Connecting Your TV," explains how to connect a VCR, antenna, decoder box and other equipment to your TV.

Chapter 3, "Operating Your TV," provides the step-by-step instructions you need in order to use your TV.

Chapter 4, "Using the Special Features," explains how to use some of the special features of the TV.

Chapter 5, "Troubleshooting," summarizes the problems you may have along with suggestions for remedying these problems.

The appendix explains a procedure that allows you to bypass the parental lock.

You'll also find a detailed index at the back of the book.

◆ Some Conventions Used in this Guide

Mitsubishi has gone to great effort to provide users with an easy-to-follow, useful owner's guide. You will find that different types of information are treated in different ways.

Users should read information labeled **Important** and information that is boxed and labeled **Warning**. The owner's guide uses these terms sparingly, and you should carefully read all information highlighted in this manner.

main topic or task

list of related topics or tasks

related topics or tasks

◆ **Basic Connections**

This section explains the basic connections you will need to make between your TV, antennas, and VCR. You will see there are different connections shown depending on the type of antenna you are using and whether or not you have a decoder box. Choose the type of connection for the type of equipment you have.

If you are having difficulty making the connections to your TV, you may want to contact your Mitsubishi dealer or your local cable company.

This section explains:

- TV - antenna or cable without a decoder box.
- TV - cable with a decoder box.
- TV - separate UHF and VHF antennas.
- TV - VCR - antenna or cable without a decoder box.
- TV - VCR - cable with a decoder box, and
- TV - audio system.

▷ **Important:** You must connect a VCR to see two active images when using Picture-In-Picture (PIP).

▷ **Warning:** You should unplug your TV and any other components before connecting them.

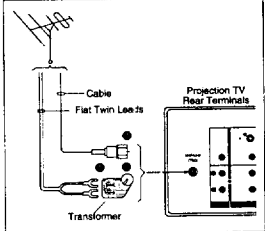
Chapter 2: Connecting Your TV

TV - antenna or cable without a decoder box

equipment you will need

If you have a standard 75-ohm coaxial cable, you will not need additional equipment. If your antenna has two leads (called flat twin leads), you'll need:

- One 75-300 ohm transformer.



connecting a cable

- Push or screw the end of the cable or to the ANT-A terminal on the TV.

connecting an antenna with flat twin leads

- Use a screwdriver to connect the leads to the transformer.
- Push or screw the transformer onto the antenna terminal on the TV.

Basic Connections

▷ **Important:**

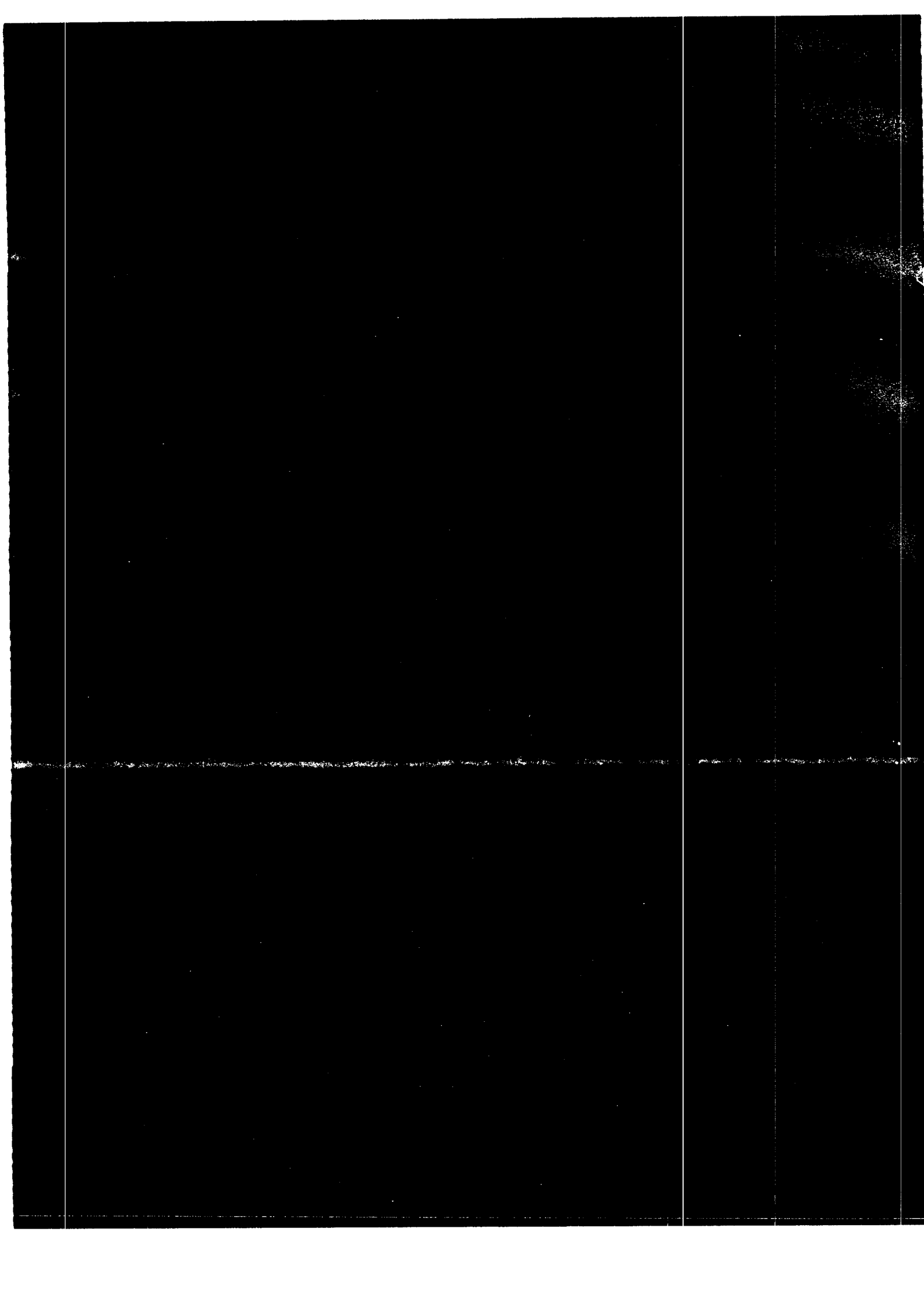
This cue indicates information critical to the operation of your new TV.

▷ **Warning**

This cue alerts you to information describing dangerous situations that could ruin your equipment or cause electrical shock.

①, ②, etc.

The step-by-step instructions on how to accomplish a particular task are signaled by white numbers on a black background.



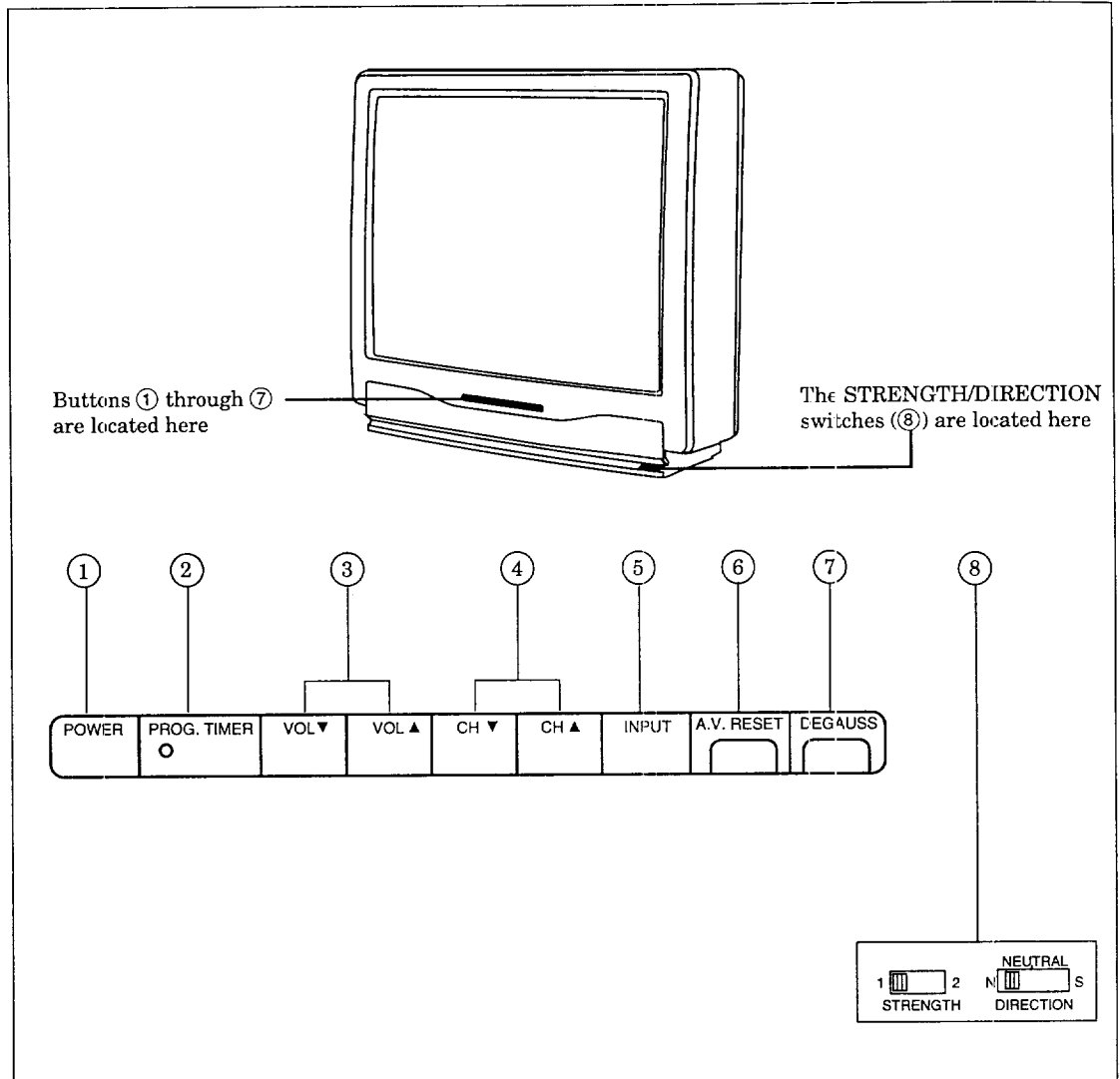


Now that you've unpacked your TV, read through the safety information, and glanced at the overview explaining how this owner's guide is organized, it's time to become familiar with the buttons and controls you'll be using when you operate the TV. This chapter will introduce the range of options available when using the buttons on the remote control or on the control panel of the TV. It also offers some general guidelines for using the remote.

Most functions can be controlled by using either the control panel or the remote control, but certain specialized functions require the use of one or the other. This chapter, which will familiarize you with the full range of button functions, contains the following sections:

- ◆ **Overview of the Control Panel**
- ◆ **Overview of the Remote Control**

◆ Overview of the Control Panel



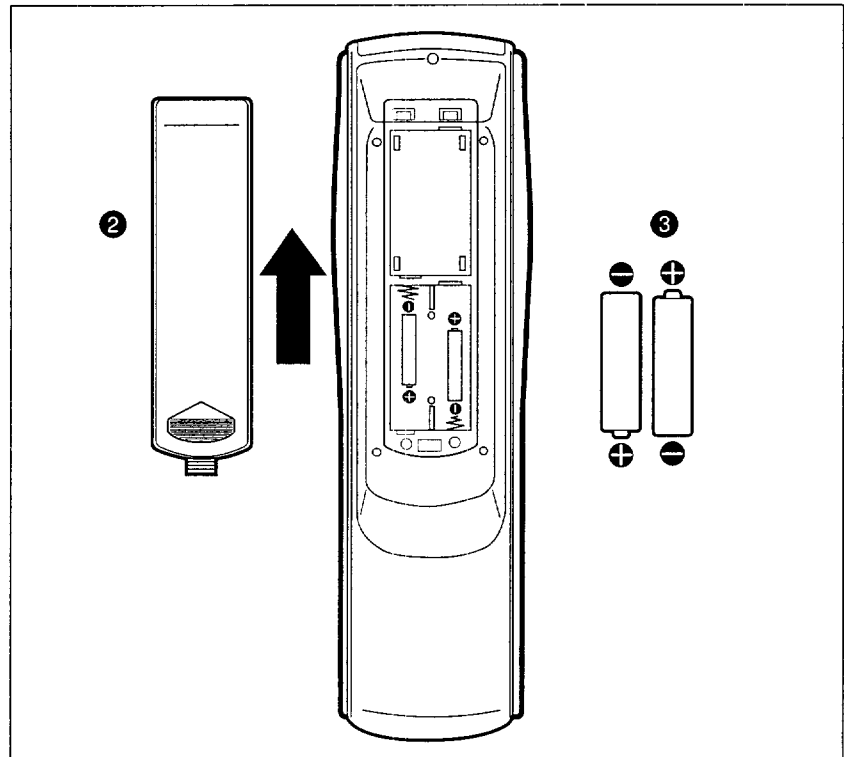
- ① **power button (POWER)**
Use this button to turn the TV on or off. When you turn the TV on, the power indicator will light in green.
- ② **program timer indicator**
This indicator lights up in green when you turn the TV on; it lights up in red when the timer is set and the TV's power is off; it lights in orange if the timer is set and the TV's power is on.
- ③ **volume controls (VOL)**
Press the ▲ button to turn up the volume and the ▼ button to turn down the volume.
- ④ **channel controls (CH)**
Use the ▲ button to switch to a channel with a higher number and the ▼ button to switch to a channel with a lower number.
- ⑤ **input button (INPUT)**
Use this button to select the input source you want to view:
 - TV, or
 - Input.
- ⑥ **A/V reset button (A.V. RESET)**
Press this button to reset all audio and video functions to their normal level or setting, except: volume, reception mode, speaker, and closed captioning.
- ⑦ **degauss button (DEGAUSS)**
If there is color impurity in your TV's picture, press this button.
- ⑧ **color purity adjustment switches (STRENGTH, DIRECTION)**
Set these switches according to the placement of your television. (Please see page 37.)

◆ Overview of the Remote Control

Getting ready to use the remote control

installing the batteries

- ❶ Take the box containing two AA size batteries from the packing bag.
- ❷ Remove the back cover of the remote control by pushing in the direction of the arrow.
- ❸ Load the batteries as indicated in the illustration, making sure that they are positioned correctly (+ to +, and – to –).
- ❹ Replace the back cover of the remote control.



For best results, use Duracell AA (MN1500) batteries.

some do's and don'ts

To ensure that your remote control will continue working properly, follow these guidelines:

- Don't press two or more buttons at the same time, unless specifically instructed to do so in this owner's guide.
- Don't allow the remote control to get wet or become heated.
- Avoid dropping the remote control on a hard surface.
- When cleaning the remote control, don't use any harsh chemicals. Use only a soft, slightly moistened cloth.

general instructions

When using the remote control to operate the TV, VCR, or cable box, follow these procedures:

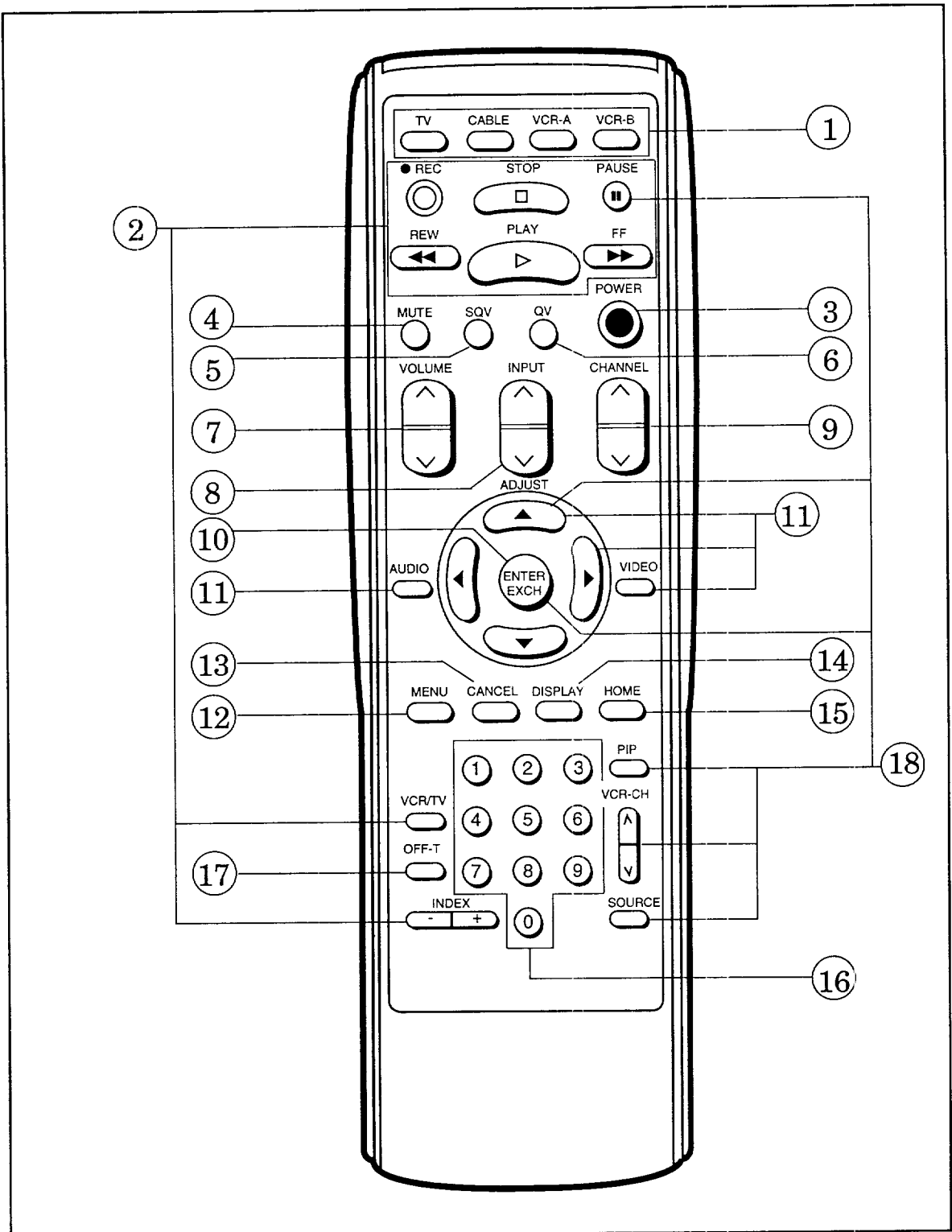
- ① Be within 20 feet of the desired equipment.
- ② Point the top of the remote control toward the equipment.
- ③ Press the appropriate button or sequence of buttons.

guidelines for using batteries

- Don't use a new battery with an old one.
- Don't heat, take apart, or throw batteries into a fire.

The following section explains more about the range of options available when using the remote control.

Remote control buttons and functions



- ① **select buttons**
Use these buttons to select the component you wish to operate: the TV, a cable decoder box, or a VCR. These buttons are also used to set up your remote control for your particular brand of cable box or VCR.
- ② **VCR buttons**
These buttons can be used to control VCRs. The remote control is pre-set to operate Mitsubishi VCRs, and it can be programmed to operate VCRs from other manufacturers.
- ③ **power button (POWER)**
Use this button to turn the TV on or off. When you turn the TV on, the power indicator lights in green.
- ④ **mute control (MUTE)**
Use this button to turn the sound off completely or to restore it to its original volume.
- ⑤ **super quick view button (SQV)**
Press this button to view the channels that you have programmed into super quick view memory. (See page 45.)
- ⑥ **quick view button (QV)**
Press this button to instantly switch to the channel that you memorized as the quick view channel. (See page 45.)
- ⑦ **volume control (VOLUME)**
Press the top part of the button to turn up the volume; press the bottom part of the button to turn down the volume.
- ⑧ **input button (INPUT)**
Use this button to select the input source you wish to view:
 - TV, or
 - Input.
- ⑨ **channel control (CHANNEL)**
Press the top part of this button to change to a channel with a higher number; press the bottom part to change to a channel with a lower number.
- ⑩ **enter and exchange button (ENTER/EXCH)**
Use this button after selecting a channel number or after selecting an item from the on-screen menu system. You will also use this button with the PIP modes.

Remote control buttons and functions (cont.)

⑪ **audio and video controls**

These buttons are used together to adjust audio and video functions (other than volume) with a two-step process: you use the audio or video button to select a function, then you use the adjust up/down buttons or right/left buttons to adjust it.

- **audio function button (AUDIO)** --- Use this button to select one of the following audio functions:
 - stereo/SAP/mono,
 - bass,
 - treble,
 - balance,
 - surround off/simulate/hall, or
 - speaker on/off.
- **video function button (VIDEO)** --- Use this button to select one of the following video functions:
 - tint,
 - color,
 - contrast,
 - brightness,
 - sharpness,
 - color temperature high/middle/low, or
 - closed captioning.
- **adjust buttons (ADJUST ▲ ▼), right/left buttons (◀▶)**
After selecting the audio or video function, use the ADJUST buttons (▲ ▼) or right/left buttons (◀▶) to adjust the function you've selected. These buttons can be used to:
 - turn the function on or off (e.g., speaker),
 - increase or decrease the function (e.g., color),
 - shift from one end of a scale to the other (e.g., balance), or
 - select a position (e.g., stereo).

You will also use the adjust buttons with the Picture-in-Picture features and to select items on the on-screen menus.

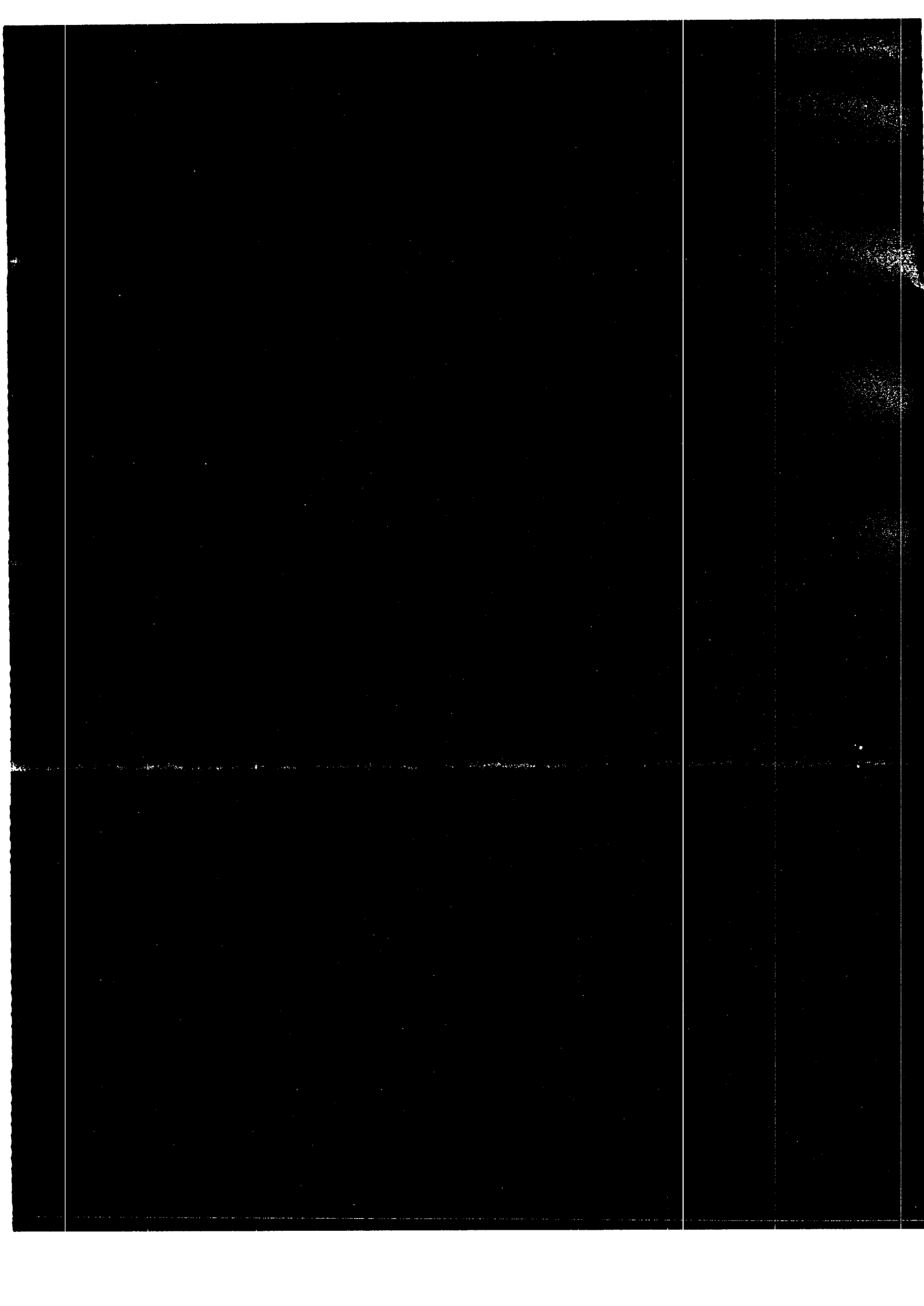
⑫ **menu button (MENU)**

Use this button to display the on-screen menu system, which gives you access to your TV's features.

⑬ **cancel button (CANCEL)**

This button is used to cancel a channel number and to clear the settings of on-screen menus.

- ⑭ **display button (DISPLAY)**
Use this button to view an on-screen summary of the current TV settings and the displays related to Extended Data Services (XDS).
- ⑮ **home button (HOME)**
Press this button to return to regular TV viewing from the on-screen displays and menus. This button can also be used to turn off captions.
- ⑯ **number buttons (0-9)**
Use these buttons to select a channel number and to enter the parental lock code.
- ⑰ **off-timer button (OFF-T)**
Use this button to program the TV to turn off automatically at a later time.
- ⑱ **picture-in-picture controls**
Use these buttons to control the special picture-in-picture (PIP) modes. (For more information, see pages 72-78.)
 - **PIP button (PIP)** --- Press this button to begin displaying the PIP image, change the size of the image, or to cancel it.
 - **VCR channel button (VCR-CH)** --- If you use a VCR as the source for the PIP image, use this button to change the channel of the PIP image.
 - **source button (SOURCE)** --- Press this button to switch the source of the PIP image between the TV and the external input.
 - **pause button (PAUSE)** --- Press this button to freeze the PIP image or to return the image to a “live” picture. You can also use this button with the Snap-shot and Replay features.
 - **enter and exchange button (ENTER/EXCH)** --- Press this button to exchange the contents of the PIP image and the main image.
 - **adjust (up/down) buttons, right/left buttons** --- Press these buttons to move the PIP image on the screen.



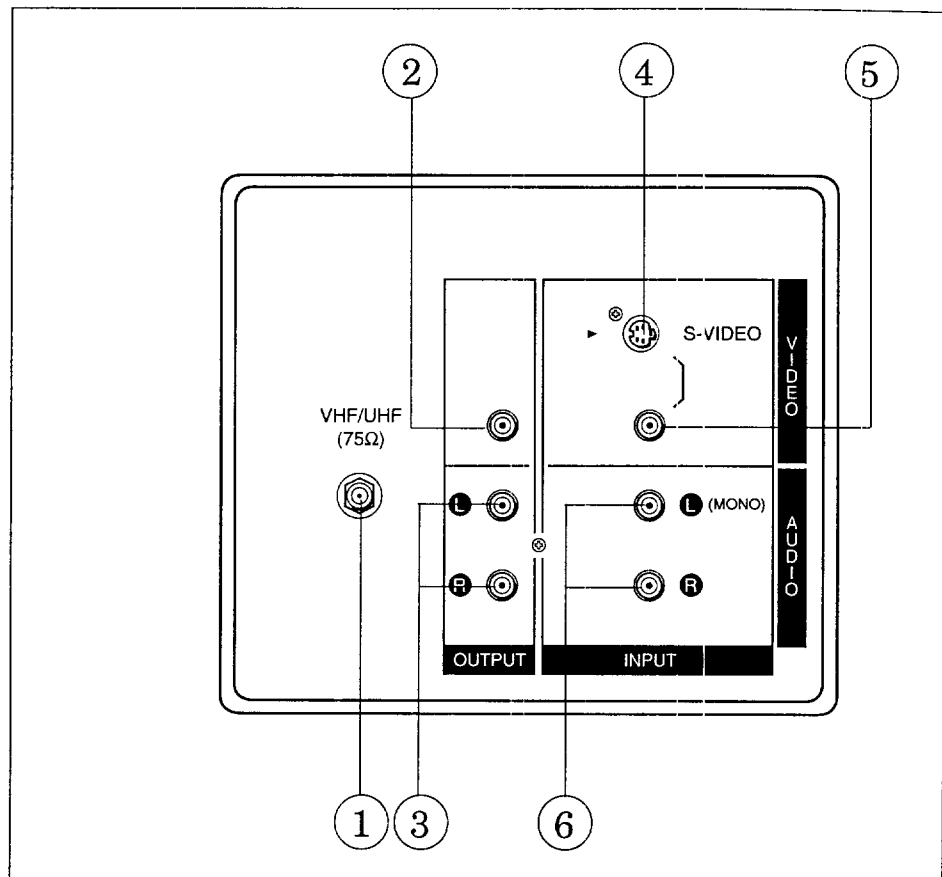


CHAPTER TWO
Connecting Your TV

This chapter offers step-by-step instructions for completing the most common hook-ups. It contains the following sections:

- ◆ **Overview of the Back Panel**
- ◆ **Basic Connections**

◆ Overview of the Back Panel



- ① **antenna terminal**
Connect a cable antenna or a VHF/UHF antenna here.
- ② **video output terminal**
Use these terminals to “send out” the TV’s video signal to a VCR, a video copy processor, etc.
- ③ **audio output terminals**
Use these terminals to “send out” the TV’s audio signal to a VCR, a video copy processor, etc.

➤ **Important:** Never connect one piece of equipment to both the TV’s input terminals and the TV’s output terminals. If you do, the TV will turn off as a safety precaution.

④ **S-VIDEO input terminal**

Use these terminals to “bring in” an S-video signal from a VCR or disc player into the TV.

➤ **Important:** If you connect S-video equipment, the standard video input will be unavailable.

⑤ **video input terminal**

Use this terminal to “bring in” a video signal from a VCR or another component into the TV.

⑥ **audio input terminals**

Use these terminals to “bring in” an audio signal from a VCR or other equipment into your TV.

◆ Basic Connections

This section explains the basic connections you will need to make between your TV, antennas, and VCR. You will see there are different connections shown depending on the type of antenna you are using and whether or not you have a decoder box. Choose the type of connection for the type of equipment you have.

If you are having difficulty making the connections to your TV, you may want to contact your Mitsubishi dealer or your local cable company.

This section explains:

- **TV + antenna or cable without a decoder box,**
- **TV + cable with a decoder box,**
- **TV + separate UHF and VHF antennas,**
- **TV + VCR + antenna or cable without a decoder box,**
- **TV + VCR + cable with a decoder box, and**
- **TV + audio system.**

▷ **Important:** You must connect a VCR to see two active images when using Picture-In-Picture (PIP).

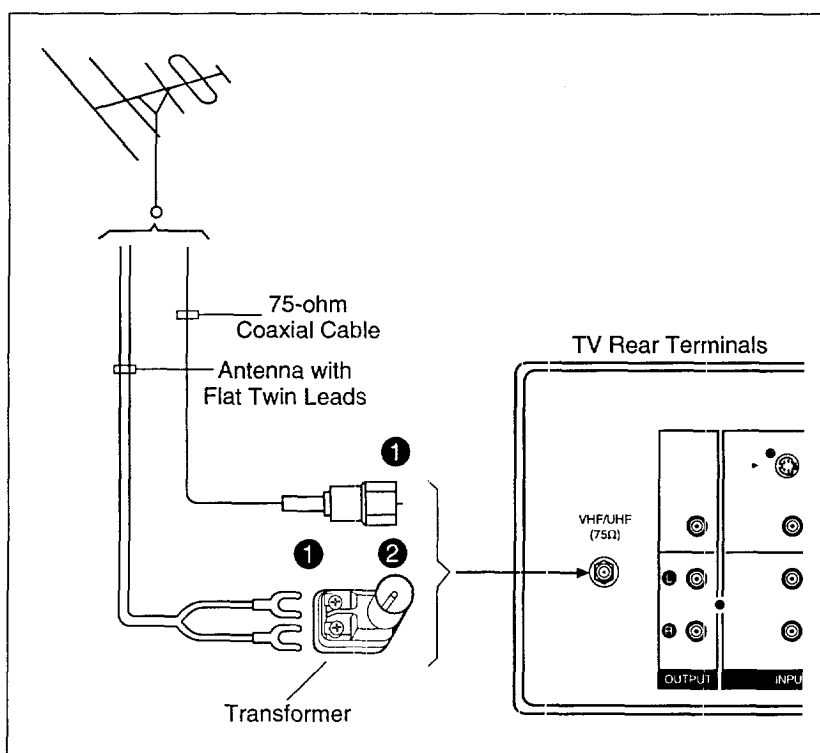
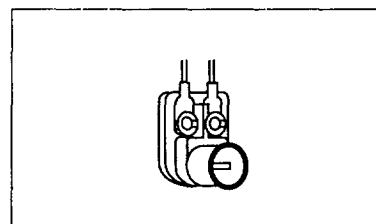
▶ **Warning:** You should unplug your TV and any other components before connecting them.

TV + antenna or cable without a decoder box

equipment you will need

If you have a standard 75-ohm coaxial cable, you will not need additional equipment. If your antenna has two leads (called flat twin leads), you'll need:

- One 75-300 ohm transformer.



connecting a cable

- 1 Push or screw the end of the cable onto the ANT-A terminal on the TV.

connecting an antenna with flat twin leads

- 1 Use a screwdriver to connect the leads to the transformer.
- 2 Push or screw the transformer onto the antenna terminal on the TV.

TV + cable with a decoder box

equipment you will need

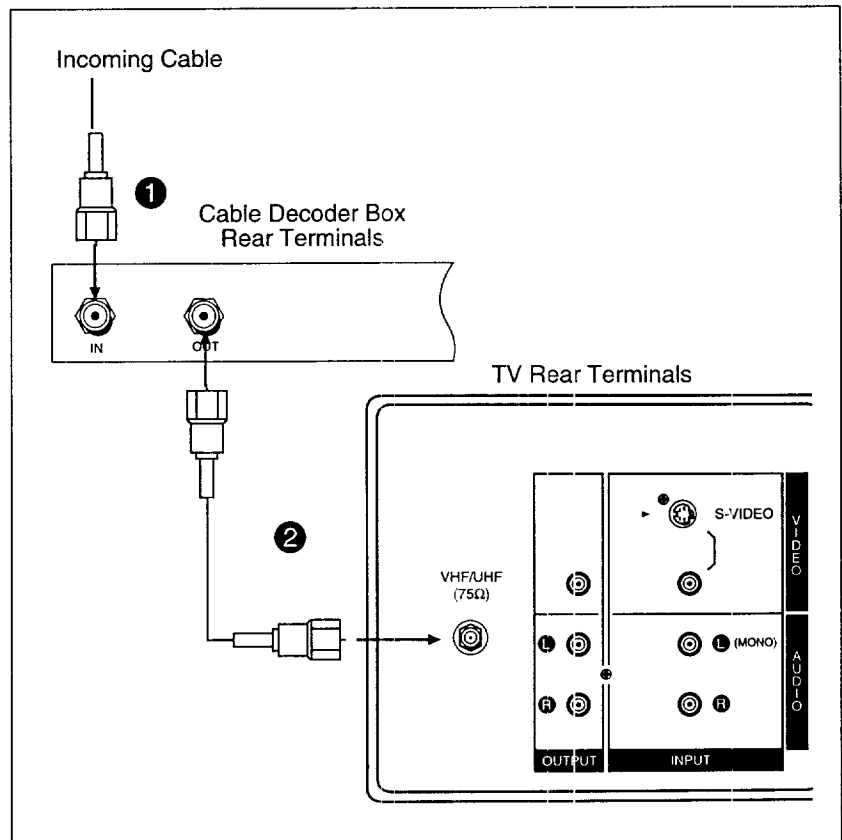
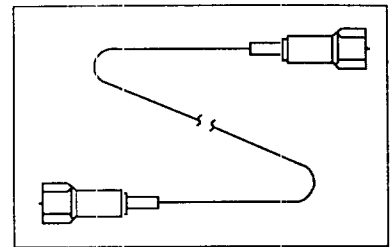
Use this hook-up if you need a decoder box to descramble cable channels. When you complete this hook-up, you should set up your remote control to operate your cable box (see page 38).

To complete the hook-up, you'll need:

- One length of 75 ohm coaxial cable.

procedure

- 1 Connect the incoming cable to the IN terminal on the decoder box.
- 2 Connect the coaxial cable to the OUT terminal on the back of the decoder box; connect the other end of this cable to the antenna terminal on the back of the TV.

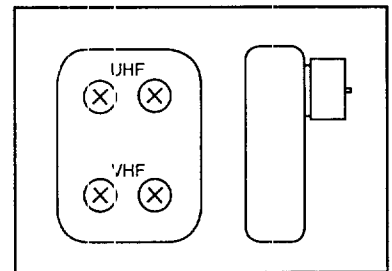


TV + separate UHF and VHF antennas

equipment you will need

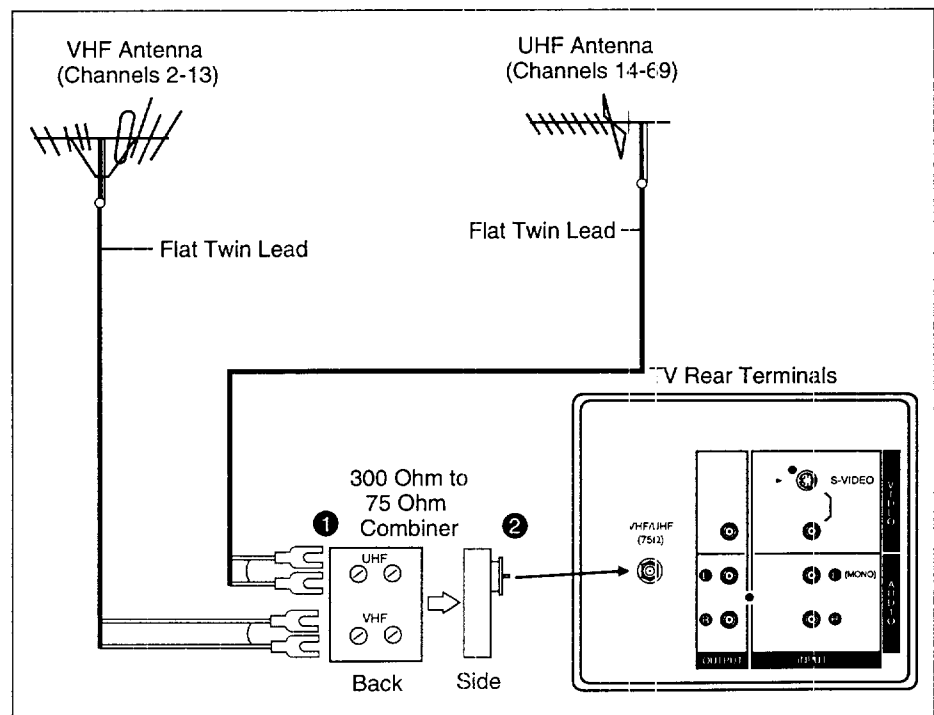
If UHF and VHF signals are brought into your home with two separate antennas, you'll need to combine the antennas in order to connect them to the TV. To do this you will need a UHF/VHF combiner. (There are different combiners for different kinds of leads. Check with your local electronics store for the kind of combiner you need.)

- Pictured to the right is a standard combiner.



To connect separate UHF and VHF antennas to your TV:

- 1 Connect the UHF and VHF antenna leads to the appropriate terminals on the UHF/VHF combiner.
- 2 Press the combiner onto the antenna terminal on the rear of the TV.

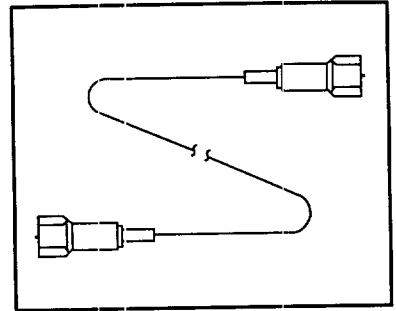


TV + VCR + antenna or cable without a decoder box

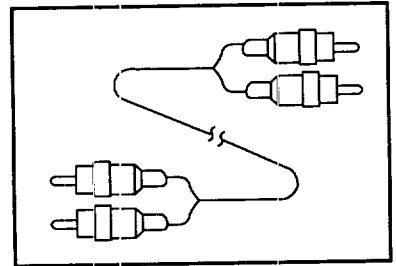
equipment you will need

You may want to connect a VCR along with your antennas or cable. To complete this hook-up, you may need the following equipment:

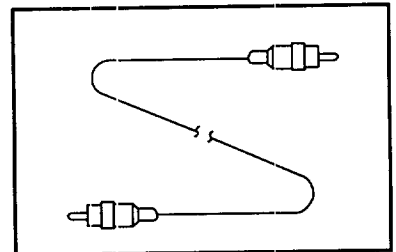
- One 75 ohm coaxial cable,



- One set of RCA pin-type audio cables,

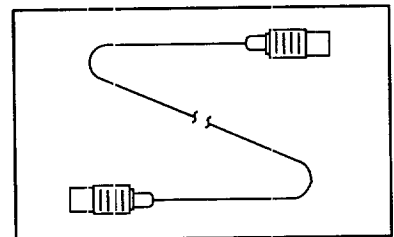


- One RCA pin-type video cable, (if connecting a standard VCR),



OR

- One S-Video cable for S-VHS VCRs.



procedure

(See illustration on the following page.)

- ❶ Connect the incoming cable or antenna to the ANTENNA IN terminal on the VCR.
- ❷ Connect one end of a coaxial cable to the ANTENNA OUT terminal on the VCR.
- ❸ Connect the other end of the coaxial cable to the antenna terminal on the TV.
- ❹ Connect an RCA pin-type video cable to the VIDEO OUT terminal on the back of the VCR. Connect the other end of this cable to the VIDEO INPUT terminal on the back of the television.

▷ **Important:** If you are connecting a Super VHS (S-VHS) VCR, use an S-Video cable instead of an RCA pin-type video cable. Connect this S-Video cable to the S-VIDEO OUT terminal on the VCR. Connect the other end of this cable to the S-VIDEO INPUT terminal on the back of the TV.

- ❺ Connect a set of RCA pin-type audio cables to the AUDIO OUT terminals on the back of the VCR. Use the red cable to connect the right (R) channel and the white cable for connecting the left (L) channel.

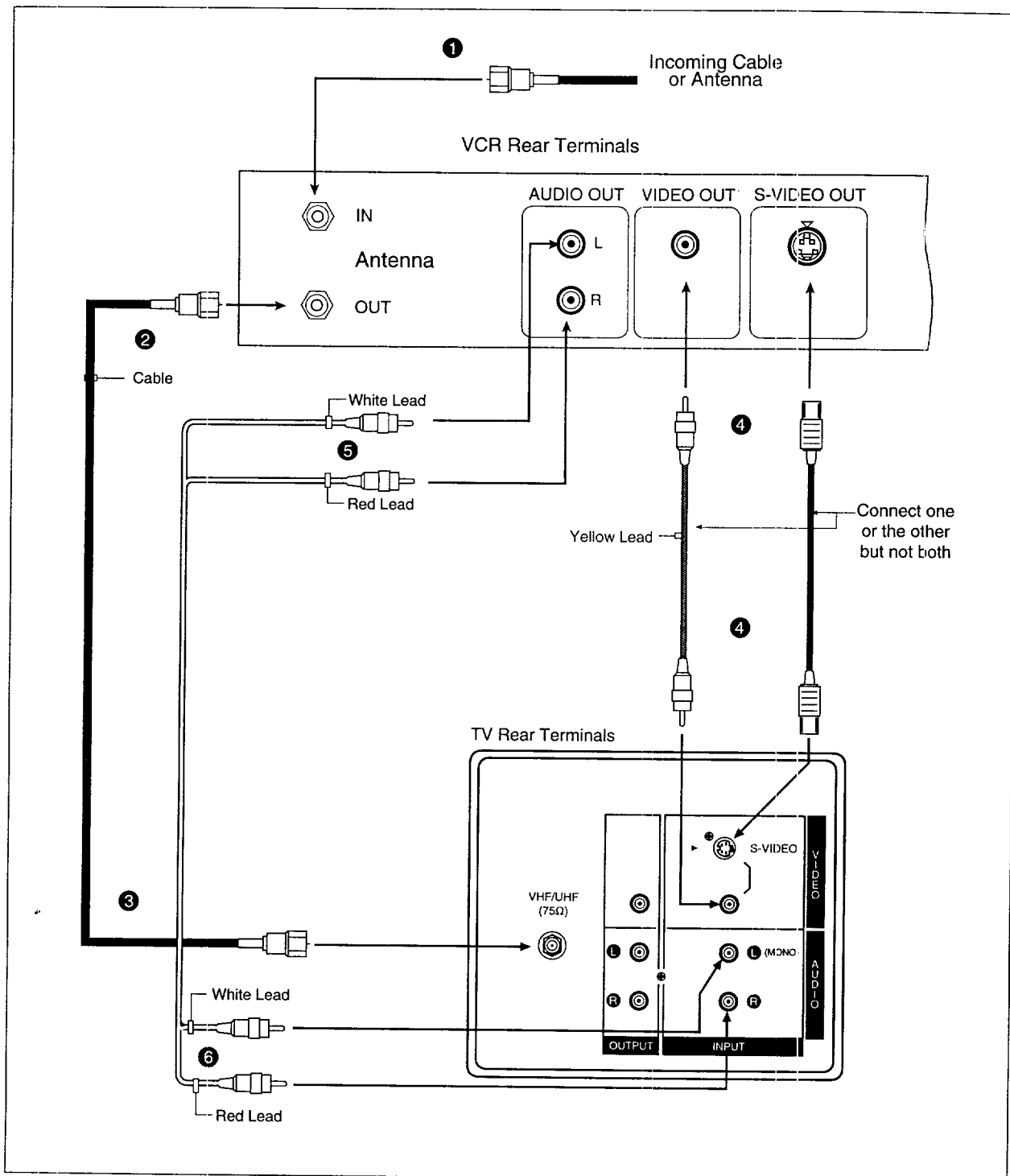
- ❻ Connect the other ends of these cables to the AUDIO INPUT terminals on the back of the TV.

▷ **Important:** If your VCR is monaural (non-stereo), you only need to connect a single RCA pin-type audio cable. Connect the cable to the VCR, then connect the other end to the L (LEFT) audio input on the back of the TV.

▷ **Important:** If your VCR has a video channel switch with an "OFF/AV" position, set it that position. See your VCR's owner's guide for details.

- ❼ Start playing a tape on your VCR.
- ❽ Use the INPUT button on your TV's remote control to select Input-1.

TV + antenna or cable without a decoder box (cont.)



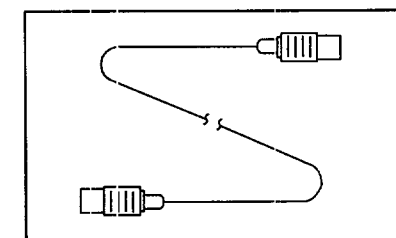
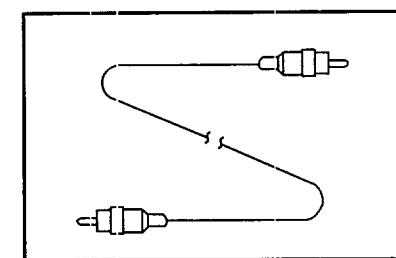
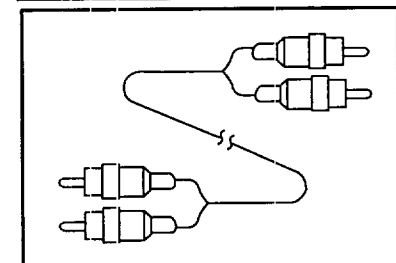
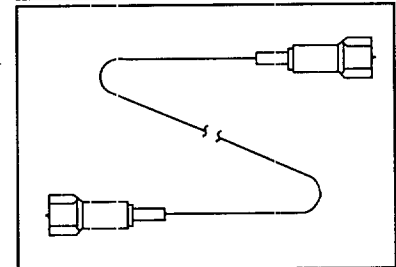
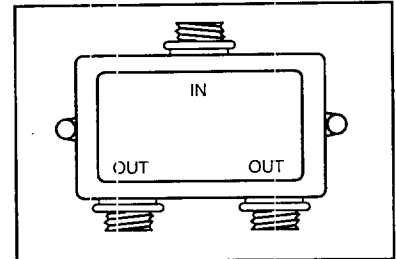
TV + VCR + cable with a decoder box

equipment you will need

This hook-up will allow you to watch a non-scrambled channel while you are recording another channel. When you complete this hook-up, you should set up your remote control to operate your cable box (see page 38).

To complete the hook-up, you will need:

- One two-way splitter,
 - Three lengths of 75 ohm coaxial cable,
 - One set of RCA pin-type audio cables,
 - One RCA pin-type video cable (if connecting a standard VCR),
- OR**
- One S-Video cable for S-VHS VCRs.



TV + VCR + cable with a decoder box (cont.)

procedure

- ❶ Connect the incoming cable to the IN terminal on the two-way splitter.
- ❷ Connect a coaxial decoder box to one of the OUT terminals on the two-way splitter. Connect the other end of this cable to the antenna terminal on the back of the TV.
- ❸ Connect a second coaxial cable to the other OUT terminal on the two-way splitter. Connect the other end of this cable to the IN terminal on the decoder box.
- ❹ Connect a third coaxial cable to the OUT terminal of the decoder box; connect the other end of this cable to the ANTENNA-IN terminal on the back of the VCR.
- ❺ Connect an RCA pin video cable to the VIDEO OUT terminal on the back of the VCR. Connect the other end of this cable to the VIDEO INPUT terminal on the back of the TV.

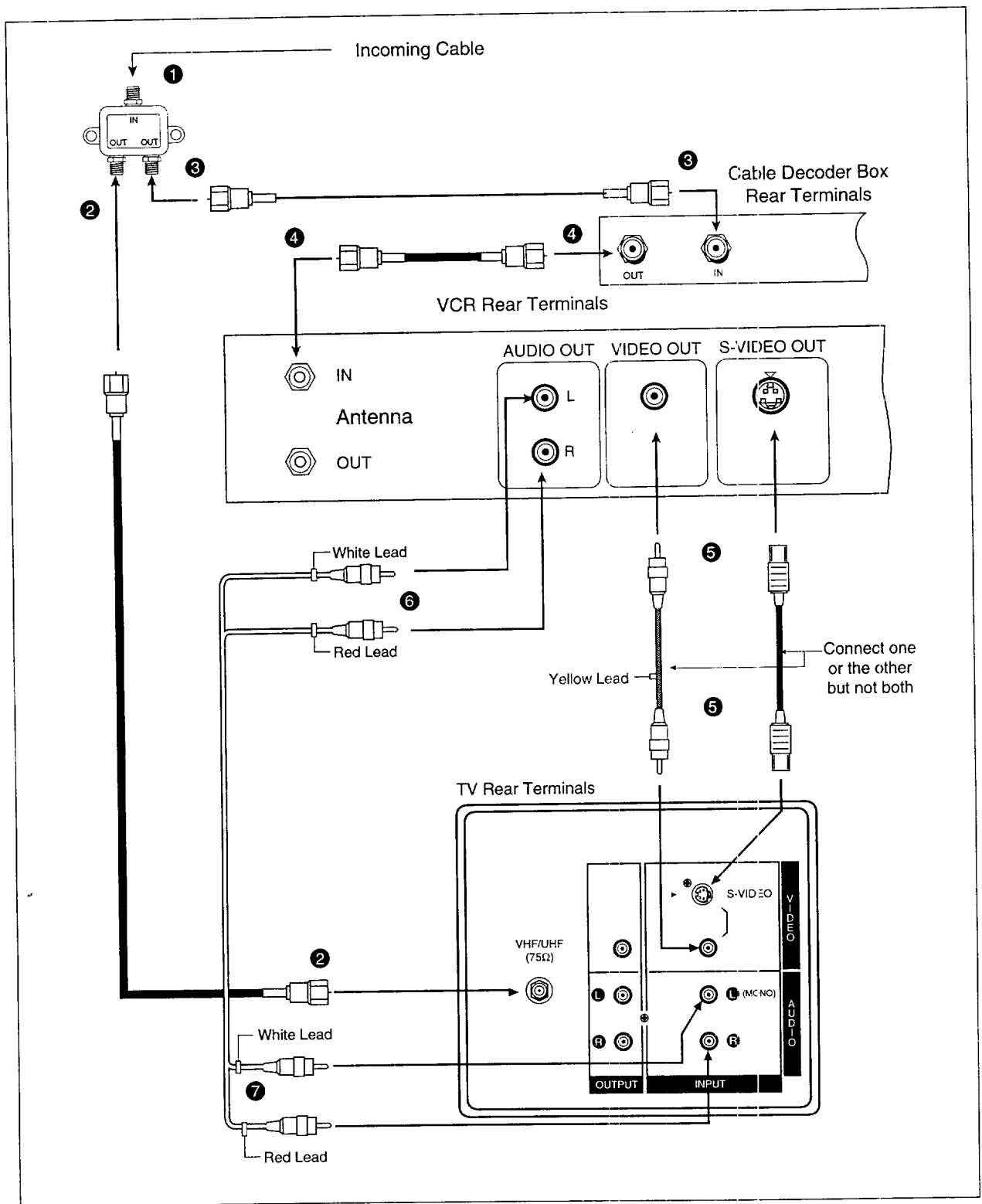
▷ **Important:** If you are connecting an S-VHS VCR, use an S-Video cable instead of an RCA pin-type video cable. Connect this S-Video cable to the S-VIDEO OUT terminal on the VCR. Connect the other end of this cable to the S-VIDEO INPUT terminal on the back of the TV.

- ❻ Connect a set of RCA pin-type audio cables to the AUDIO OUT terminals on the back of the VCR. Use the red cable to connect the right (R) channel and the white cable for connecting the left (L) channel.
- ❼ Connect the other ends of these cables to the AUDIO INPUT terminals on the back of the TV.

▷ **Important:** If your VCR is monaural (non-stereo), you only need to connect a single RCA pin-type audio cable. Connect the cable to the VCR, then connect the other end to the L (LEFT) audio input on the back of the TV.

▷ **Important:** If your VCR has a video channel switch with an “OFF/AV” position, set it that position. See your VCR’s owner’s guide for details.

- ❽ Start playing a tape on your VCR.
- ❾ Use the INPUT button on your TV’s remote control to select Input-1.



Basic Connections

TV + audio system

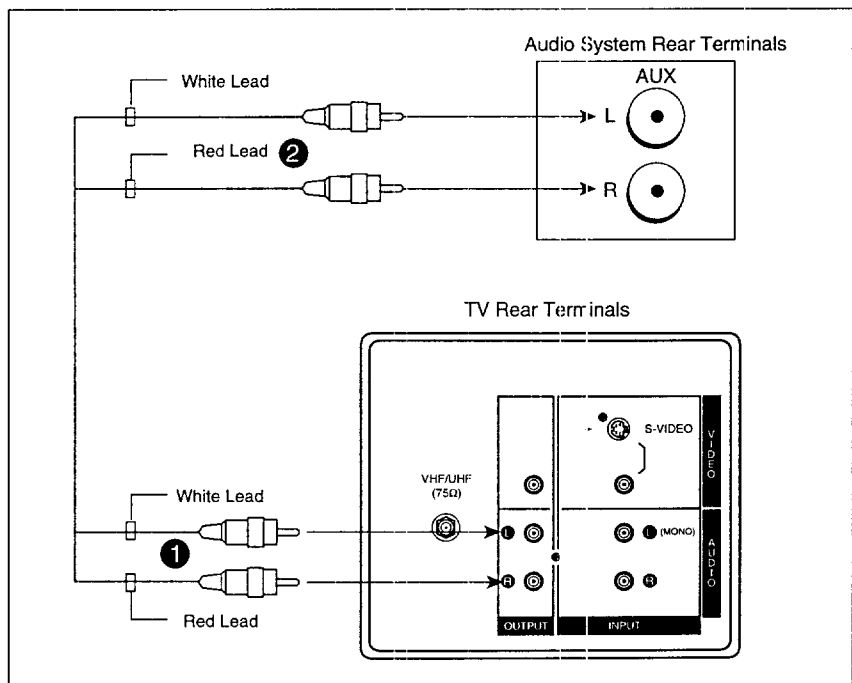
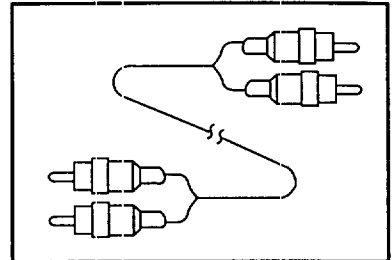
equipment you will need

To hook up an audio system, you will need:

- One set of RCA pin audio cables.

procedure

- 1 Connect the audio cables to the AUDIO OUTPUT terminals on the back of the TV. Use the red cable to connect the right (R) channel and the white cable to connect the left (L) channel.
- 2 Connect the other ends of these cables to the AUX IN terminals on the back of the audio system.
- 3 Turn off the television's speakers. To do this, press the AUDIO function button on the remote control until you see the "Speaker" display. Set the speakers to "Off" by pressing the ADJUST buttons. See "Adjusting the sound," on page 54.
- 4 Set the audio system's input to the "AUX" position.



> **Important:** You should make this connection in addition to one of the other connections in this chapter, not instead of other connections.



CHAPTER THREE
Operating Your TV

Now that your TV is connected to the cable, antenna, or external components, it's time to enjoy your equipment. This chapter will explain how to operate the TV, first focusing on functions that are basic and easy and then explaining some advanced features.

This chapter explains:

- ◆ **Getting Started**
- ◆ **Using the Advanced Features**

◆ Getting Started

This section is designed to get you started enjoying your new TV. If you follow these procedures one by one, you will soon begin discovering everything your television can do.

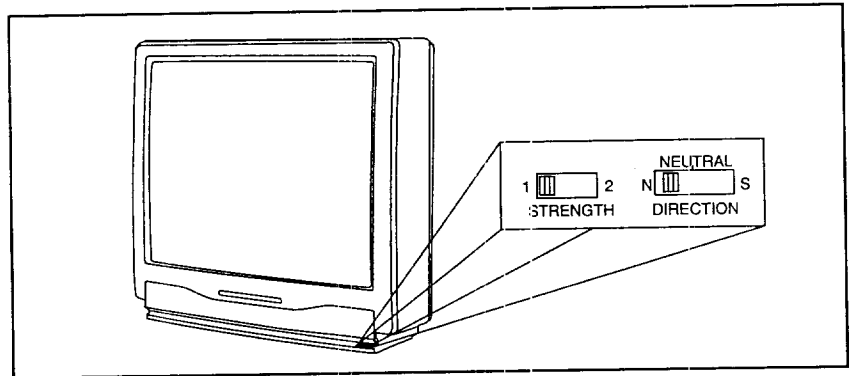
You'll find information on:

- **Adjusting the color purity,**
- **Using the remote control to operate cable boxes and other brands of VCRs,**
- **Turning the TV on/off,**
- **Selecting the input source,**
- **Changing channels,**
- **Understanding the on-screen menus,**
- **Setting the clock,**
- **Memorizing channels,**
- **Adding and deleting channels,**
- **Renaming the input,**
- **Selecting the menu language,**
- **Using video mute,**
- **Adjusting the sound,**
- **Adjusting the picture, and**
- **Using the closed caption decoder.**

Adjusting the color purity

Because your Mitsubishi color television has a large screen picture tube, the earth's magnetic field can cause discolored patches on the edges of your screen. To correct this, follow the instructions below.

- ❶ Turn off the TV set.
- ❷ Determine the compass direction where the set is facing. The direction is determined from the front of the screen facing forward.



- ❸ Set the DIRECTION switch according to the chart below.

TV SET DIRECTION	DIRECTION SWITCH			STRENGTH SWITCH
	S	NEUTRAL	N	
North			X	2
North East			X	
North West			X	
South	X			
South East	X			
South West	X			
East		X		
West		X		

- ❹ Turn the TV on, and check the color performance.
 - If color impurity is still present, change the STRENGTH switch to position "1." If there is still impurity, wait a few minutes, then press the DEGAUSS button on the control panel.
 - You must adjust the color purity switches each time you move the TV to a new location.
 - If there is still color impurity after adjusting the switches, contact your Mitsubishi Authorized Warranty Service Center.

▷**Important:** Color impurity can also be caused by unshielded speakers and strong magnets. Move these items away from your TV.

Using the remote control to operate cable boxes and other brands of VCRs

operating Mitsubishi components

This TV's remote control comes programmed to operate Mitsubishi TVs and VCRs. The select buttons (across the top of the remote) determine which component the remote control will operate.

The following buttons are available when using this TV:

- power button
- pause button
- mute control
- super quick view button
- quick view button
- volume control
- input button
- channel control
- enter button
- audio and video controls
- menu button
- cancel button
- display button
- home button
- off-timer button
- number buttons
- PIP controls
- VCR buttons

operating VCRs or cable boxes from other manufacturers

The remote control is pre-set to operate Mitsubishi VCRs, but it can also operate VCRs from other manufacturers as well. If you have a VCR from another manufacturer, or if you have a cable box, you should "set up" the remote control.

Each layer on the remote control (CABLE, VCR-A, or VCR-B) can be set for either a cable box or a VCR.

setting up the remote control to operate your VCR

- ① Turn off your VCR.
- ② Press one of the select buttons across the top of the remote control to choose the layer that you want to "set up." You can choose between VCR-A, VCR-B or CABLE.
- ③ While holding in the POWER button on the remote control, enter the code number listed in the chart on the following page for your brand of VCR. Be sure to enter both digits of the code number. If more than one number is listed, try the first one.
- ④ Release the POWER button.
- ⑤ Press the POWER button again. Your VCR should turn on. If the VCR turns on, your remote control is now "set up" correctly.

If your VCR does not turn on, repeat the instructions, trying each code number listed for your brand of VCR. If none of those code numbers work, try each number, 01 through 20.

If your VCR is this brand...	...enter this code	If your VCR is this brand...	...enter this code	If your VCR is this brand...	...enter this code
Mitsubishi (A)	01	Magnavox	03, 10, 11	Scot	15
Mitsubishi (B)	02	Multitech	06	Harp	16
Canon	03	NEC	12	Sony	17, 18
Emerson	04, 05	Panasonic	03	Sylvania	03, 10, 11
Funai	06	Philco	03, 10	Symphonic	06
GE	03	Philips	03, 10, 11	Teknika	04, 06
Goldstar	07	Quasar	03	Toshiba	15
Hitachi	08	RCA	08, 13, 20	Totevision	07
JVC	09	Sanyo	14	Zenith	19

setting up the remote control to operate your cable box

- ❶ Turn on your cable box.
- ❷ Press one of the select buttons across the top of the remote control to choose the layer that you want to "set up." You can choose between VCR-A, VCR-B or CABLE.
- ❸ While holding in the POWER button on the remote control, enter the code number listed in the chart below for your brand of cable box. Be sure to enter both digits of the number. If more than one number is listed, try the first one.

If your cable box is this brand...	...enter this code	If your cable box is this brand...	...enter this code
General Instrument	54, 55, 56, 57, 58, 59 60, 67, 68, 72, 85, 87	Philips	73, 74, 75, 76, 77, 93, 94, 95, 96, 97, 98, 99
Hamlin	52, 53, 69	Pioneer	64, 65, 84
Jerrold	54, 55, 56, 57, 58, 59 60, 67, 68, 72, 85, 87	Oak	61, 62, 82
Macom	71	Regency	79
Oak	61, 62, 82	Scientific Atlanta	66, 86, 88, 89, 91, 92
Panasonic	63, 70	Tocom	54, 55, 56, 57, 58, 59 60, 67, 68, 72, 85, 87
		Zenith	51

- ❹ Release the POWER button.
- ❺ Press the POWER button again. Your cable box should turn off. If the box turns off, your remote control is now set to operate your cable box.

If your cable box does not turn on, repeat the instructions above, trying each number listed for your brand of cable box. If none of these numbers work, try each number, 51 through 99.

▷ **Important:** You may need to press the CHANNEL buttons to turn your cable

Using the remote control to operate cable boxes and other brands of VCRs (cont.)

- ▷ **Important:** Sometimes manufacturers will change their products, or they may use more than one code. If this is the case, your remote may not be able to operate your VCR or cable box.
- ▷ **Important:** Each layer (CABLE, VCR-A or VCR-B) can be set for either a cable box or a VCR.
- ▷ **Important:** When you replace the batteries in your remote control, the remote may return to its initial setting.

using your remote control to operate your VCR

After you have set up your remote control for your particular brand of VCR, you can use the remote to operate your VCR.

- ❶ Use the select buttons across the top of the remote control to choose the layer you “set up” to operate the VCR: VCR-A, VCR-B, or CABLE.
- ❷ Point the remote control at the VCR and press the desired buttons.

If you are using a Mitsubishi VCR, you will be able to use all of the buttons on the remote control to operate your VCR except for MUTE, VOLUME and the PIP function buttons, which will always operate the TV itself.

If you are using another brand of VCR, you can use the POWER, CHANNEL, REC, STOP, PAUSE, REW, PLAY and FF buttons to operate your VCR.

using your remote control to operate your cable box

After you have set up your remote control for your particular brand of cable box, you can use the remote to operate your cable box.

- ❶ Use the select buttons across the top of the remote control to choose the layer you “set up” to operate the cable box: VCR-A, VCR-B, or CABLE.
- ❷ Point the remote control at the cable box and press the desired buttons.

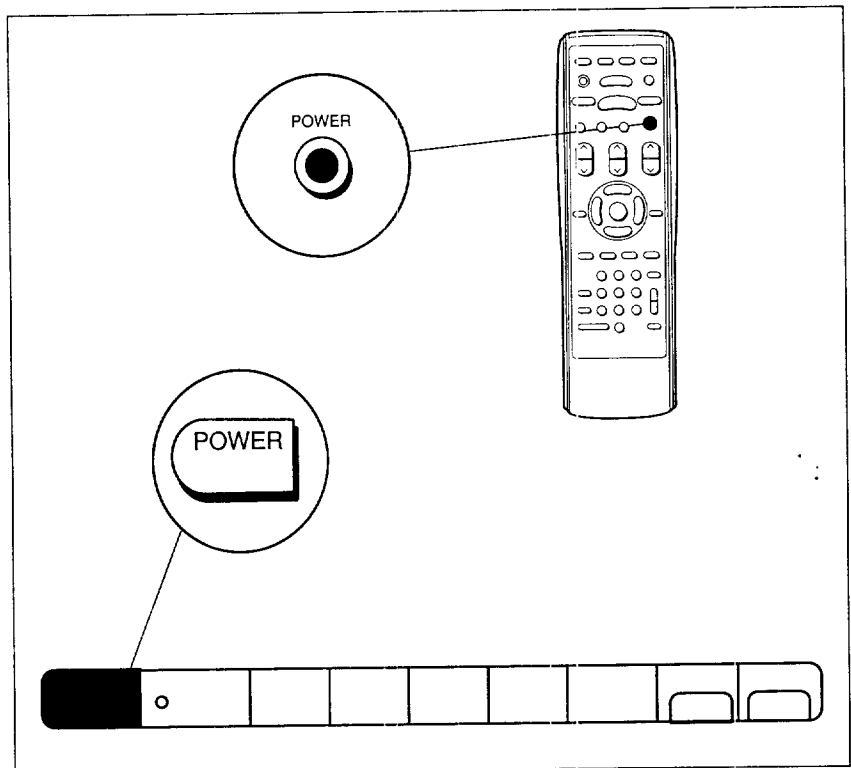
Only the POWER, CHANNEL, and number (0 – 9) buttons can be used when operating your cable box.

Turning the TV on/off

- ▷ **Important:** Before using the remote control to operate the TV, press the “TV” select button on the remote control.

Use the POWER button on either the control panel or the remote control to turn the TV on and off. The power indicator will light up in green when you turn the TV on.

- ▷ **Important:** Even with the power turned off, there is a small amount of current that continues to flow into the TV. This maintains any changes to the settings and operates the built-in clock and timing functions. Unplugging the set will erase these settings, requiring you to set them again. Unplug the TV only when it won't be used for a long time.

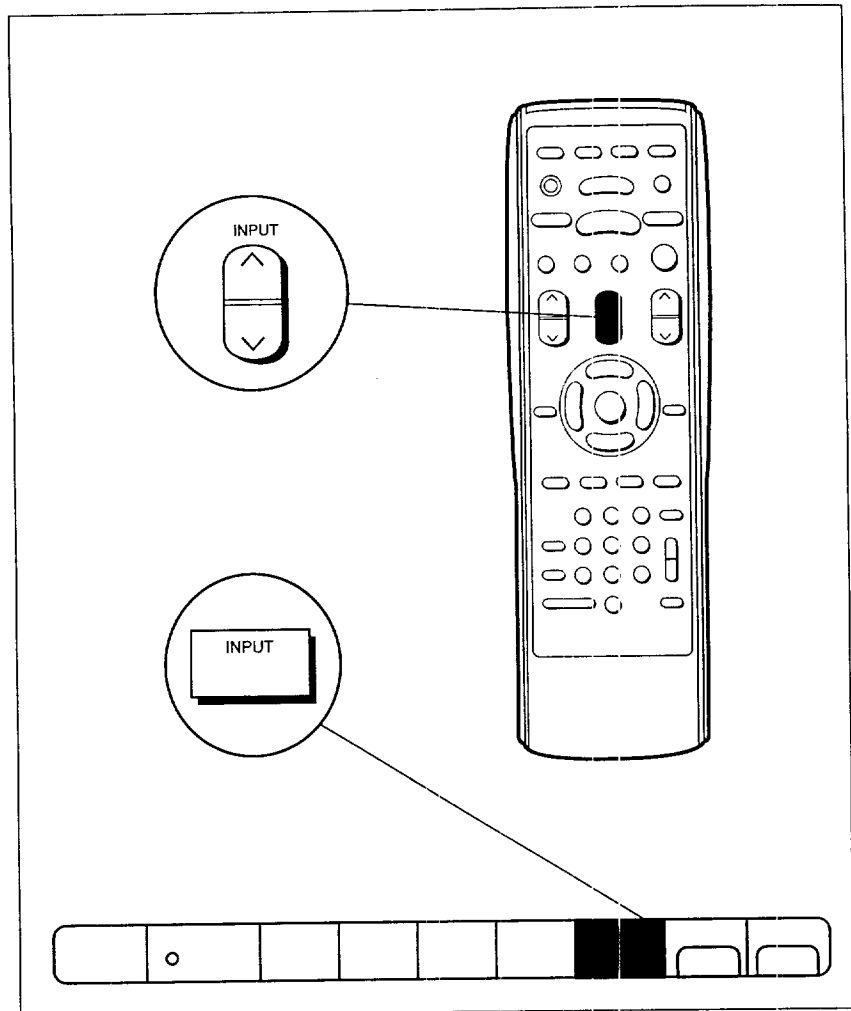


When you turn on your TV for the first time, the screen may be displaying the “Select Language” menu. You should select the on-screen language you want to use. For more information, see page 52, “Selecting the menu language.”

Selecting the input source

If you connected a component, such as a VCR, camcorder, or laserdisc player, to your TV, you will need to change the input source to view the signal from the component.

To select an input source, press the input button (INPUT) on the control panel or on the remote control.



The name of the input you have selected will be displayed briefly in the corner of the screen.

Changing channels

Your TV offers you four ways of changing channels once their numbers have been programmed into channel memory:

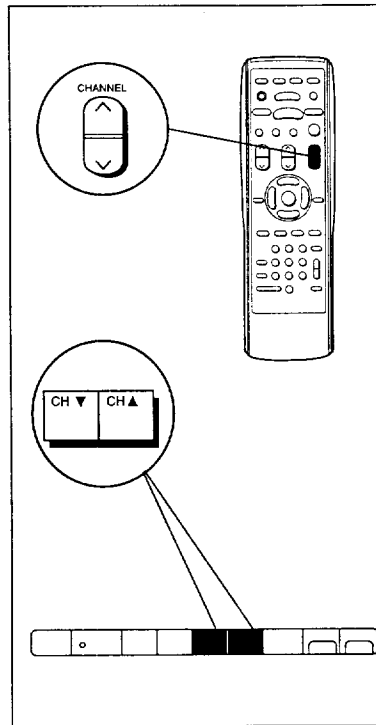
- selecting a channel sequentially using the channel controls,
- directly accessing a channel by pressing the number buttons,
- using the Quick View option to switch to a particular memorized channel, and
- using the Super Quick View function to switch between channels on a user-chosen list.

To change channels faster, use either of the following procedures:

- Enter three digits for every channel number, using zeros where needed. (For example, enter “004” to view channel 4 and “028” to view channel 28.)
- Press the ENTER button after selecting the number of the channel. (For example, press “4” and “ENTER” to view channel 4.)

> **Important:** Cable channel numbers 0 and greater than 126 are not used. TV stations 0, 1 and 70 through 999 are not used. If these channel numbers are pressed, the channel remains unchanged.

Changing channels (cont.)

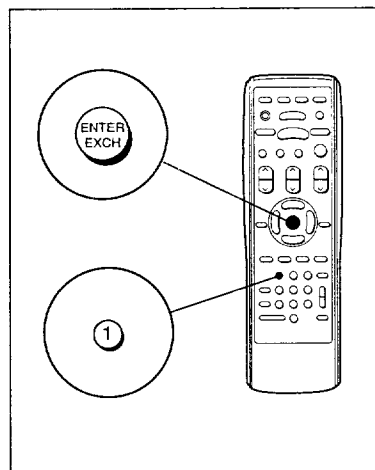


changing channels sequentially

To change channels:

- 1 Press one of the channel controls (CH, CHANNEL) on the control panel or on the remote control. The TV will automatically tune to the next memorized channel.

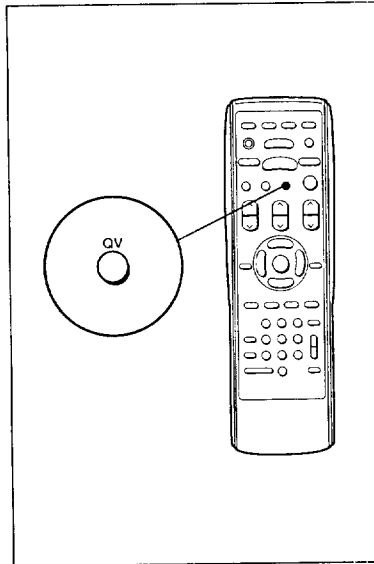
▷ **Important:** You cannot change channels sequentially until available channels have been programmed into memory. (See “Memorizing channels,” page 49.)



changing channels directly

To move directly to a particular channel without going through the programmed channels in between:

- 1 Use the remote control to select the number of the channel you want to view.
- 2 Press the ENTER button.

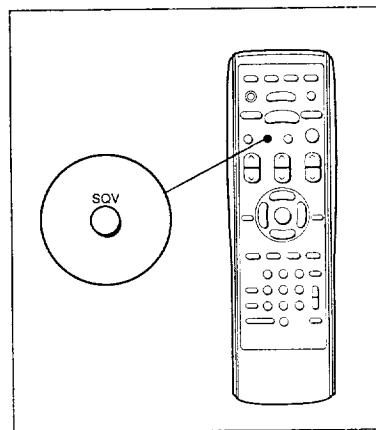


using the Quick View option

Quick View allows you to memorize a particular channel and switch to it quickly.

- ❶ Tune to the channel you wish to memorize.
- ❷ Press and hold the QV button for about 3 seconds. When you release the button, the channel number will appear on the screen, indicating that you have memorized that channel.
- ❸ After you've changed to another channel, press the quick view (QV) button to immediately return to the memorized channel.
- ❹ If you press QV while you are watching the memorized channel, you will switch to last channel you were watching.

▷ **Important:** The memorized channel will remain the same until you memorize a new channel with the procedure described above.



using the Super Quick View option

To view selected channels programmed into Super Quick View memory:

- ❶ Enter the desired channels into Super Quick View memory. (See "Using the Super Quick View tuning," page 65.)
- ❷ Press the SQV button repeatedly to view the desired channels in sequence.

Understanding the on-screen menus

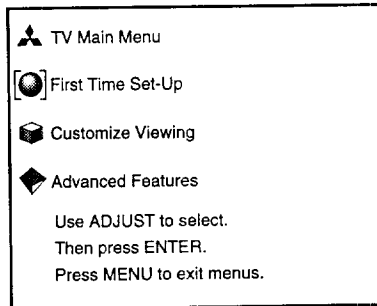
One of the distinctive features of this TV is an on-screen menu system that provides step-by-step instructions for using some of the TV's special capabilities.

When using any of the on-screen menus, please keep the following in mind:

- The on-screen menus will clear if no item is selected within 5 minutes.
- Unavailable menu items are indicated by light blue letters, instead of the normal white letters.
- Some on-screen menu items must be set before other items are available. For example, "Set the timer" will only be available if "Set the clock" has been set.
- You can exit the on-screen menus any time by pressing the MENU button repeatedly. You will then return to regular TV viewing.
- You can also exit the on-screen menus by pressing the HOME button on the remote control.

Setting the clock

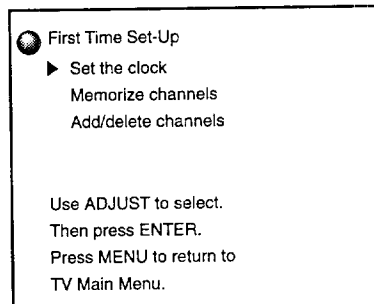
Your TV contains an internal clock to indicate the current time. If there is a broadcaster in your area that is sending the current time along with its regular broadcast signal, then your TV can automatically set its clock with this signal. Otherwise, you can set the clock yourself.



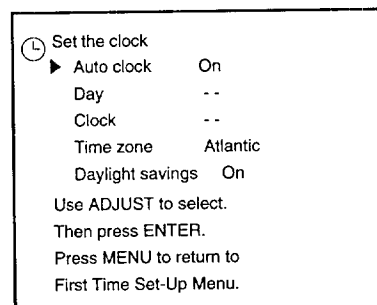
1 Press the MENU button on the remote control. The TV Main Menu will appear on the screen.

2 Select "First Time Set-Up" using the ADJUST buttons; then, press the ENTER button.

3 You will see the "First Time Set-Up" screen. Select "Set the clock" using the ADJUST buttons; then, press the ENTER button.

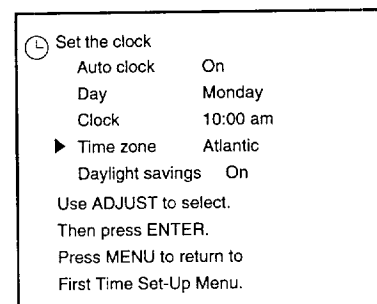


4 If you want your TV to set its clock automatically, use the ADJUST buttons to set "Auto clock" to "On"; if you want to set the clock yourself, set "Auto clock" to "Off," then follow the instructions in "Setting the clock yourself," on page 48.



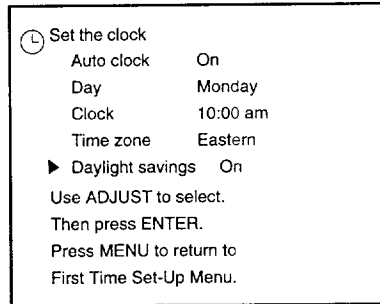
using automatic clock setting

- Set "Auto clock" to "On" using the ADJUST buttons; press the ENTER button.



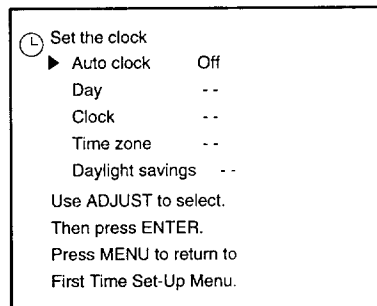
- Use the ADJUST buttons to select the "Time zone" you are in; then, press the ENTER button. The available time zones are: Atlantic, Eastern, Central, Mountain, Pacific, Alaska and Hawaii.

Setting the clock (cont.)



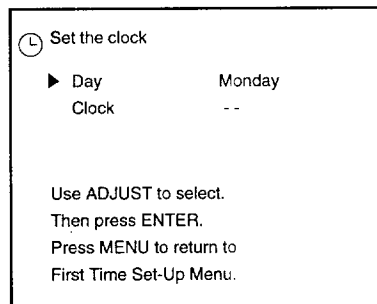
- If you follow daylight savings time, set “Daylight savings” to “On” using the ADJUST buttons. If you do not follow daylight savings time, set it to “Off.” Press the ENTER button.
- At this point, you have prepared the TV to set its clock automatically. The screen will return to the “First Time Set-Up” menu.

▷ **Important:** The TV can only set the clock automatically when there is a broadcaster in your area that is sending the current time via Extended Data Services (XDS). The clock will start just after the TV receives the XDS signal.

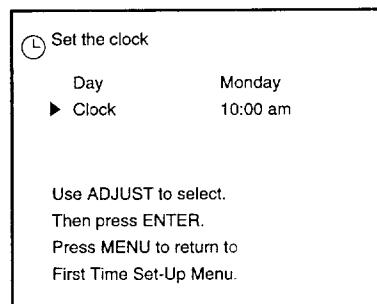


setting the clock yourself

- Set “Auto clock” to “Off” using the ADJUST buttons. Press the ENTER button.



- Select the “Day” using the ADJUST buttons. Press the ENTER button.

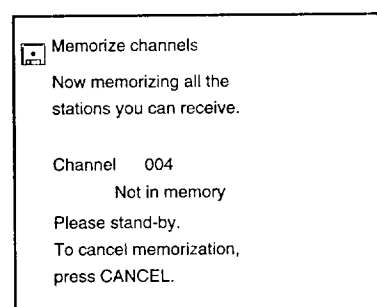
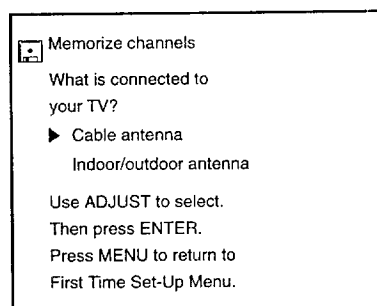
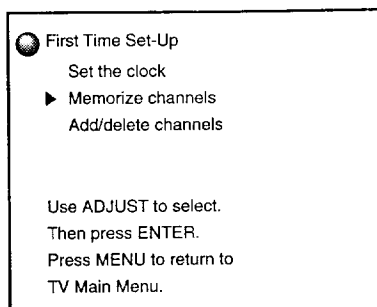


- Set the “Clock” using the ADJUST buttons.
- After you have set the “Day” and “Clock,” press the ENTER button to start the clock.

The screen will return to the “First Time Set-Up” menu.

Memorizing channels

You can use the menus to automatically memorize the channels your TV can receive. Once channels are memorized, you can scan through them using the channel controls on the remote control or on the front panel.



1 Press the MENU button on the remote control. The TV Main Menu will appear on the screen.

2 Select “First Time Set-Up” using the ADJUST buttons; then, press ENTER.

3 Select “Memorize channels” using the ADJUST buttons; then, press ENTER.

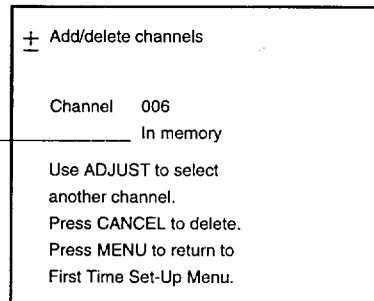
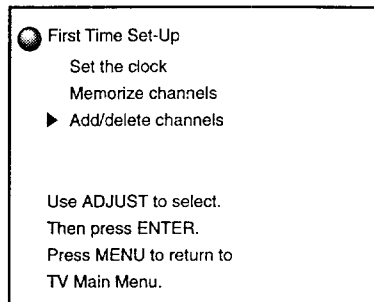
4 Use the ADJUST buttons to choose the type of antenna you connected: Cable antenna or Indoor/outdoor antenna. Press ENTER.

5 You will see a message that channel memorization is in progress. A channel being added to memory will be labeled “In memory.” Channels not being added will be labeled “Not in memory.” You can stop channel memorization at any time by pressing CANCEL.

▷ **Important:** Channel controls will work only after channels have been memorized. After memorization, use the channel controls (CH, CHANNEL) to automatically advance to the next memorized channel. Use the number buttons to select individual channels.

Adding and deleting channels

After all available channels have been programmed automatically, channels with weaker signals can be added or deleted with the following procedure.



Either "In memory" or "Not in memory" will appear.

1 Press the MENU button on the remote control. The TV Main Menu will appear on the screen.

2 Select "First Time Set-Up" using the ADJUST buttons; then, press ENTER.

3 Select "Add/delete channels" using the ADJUST buttons; then, press ENTER.

4 The "Add/delete channels" screen will appear. Use the ADJUST buttons to select the channel you would like to add or delete.

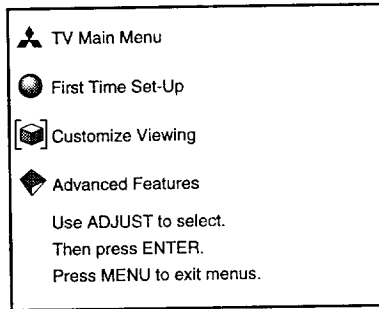
(You can also use the CHANNEL button on the remote control to change channels.)

5 If a channel is labeled "In memory," use the CANCEL button to remove it from memory. If a channel is labeled "Not in memory," use the ENTER button to add it to memory.

6 When you are finished adding and deleting channels, press the HOME button to return to normal TV viewing.

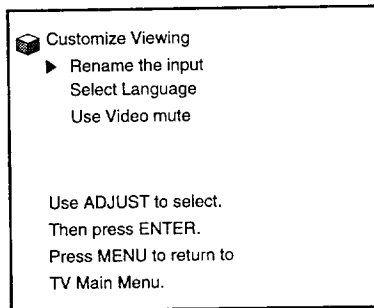
Renaming the input

This feature allows you to rename the external input. For example, you might want to name the input "VCR" or "DISC." The name you give the input will appear on the on-screen display.

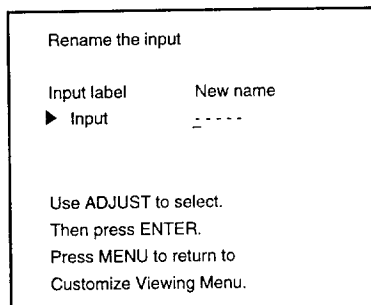


1 Press the MENU button on the remote control. The TV Main Menu will appear on the screen.

2 Select "Customize Viewing" using the ADJUST buttons; press ENTER.



3 You will see the "Customize Viewing" screen. Select "Rename the input" using the ADJUST buttons; press ENTER.



4 Set each character in the new name using the ADJUST buttons and the ENTER button.

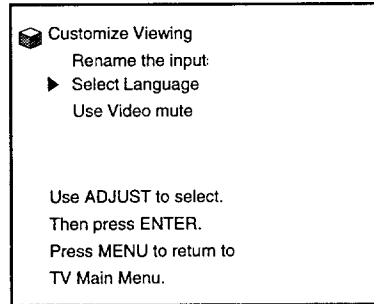
You can rename the inputs using letters (A–Z), numbers (0–9), or symbols (: / . , () ! " # \$ % & ' blank + ; < = > ? blank -).

When you press the CANCEL button while setting the name, the cursor will move one position to the left. You can clear the entire name by pressing CANCEL when the cursor is at the left-most position.

5 After you have finished naming the input, press the MENU button; the screen will return to the "Customize Viewing" menu.

Selecting the menu language

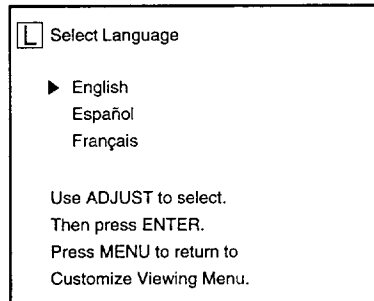
This TV allows you to display the on-screen menus in one of three languages: English, Spanish, or French.



① Press the MENU button on the remote control. The TV Main Menu will appear on the screen.

② Select “Customize Viewing” using the ADJUST buttons; press ENTER.

③ Select “Select Language” using the ADJUST buttons; press ENTER.

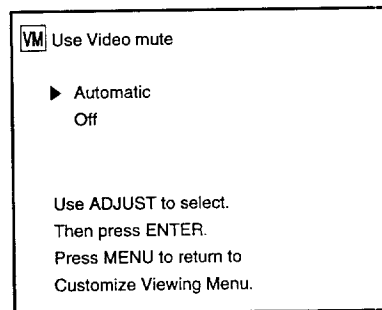
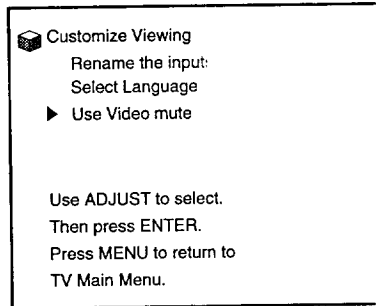


④ Use the ADJUST buttons to select the language you want.

⑤ Press the ENTER or MENU button to return to the “Customize Viewing” menu.

Using video mute

When you use the video mute function, your TV will display a blue screen whenever it is receiving a very weak TV signal or a weak signal from a VCR. If you want to try viewing a weak signal, you can turn the video mute off.



- 1 Press the MENU button on the remote control. The TV Main Menu will appear on the screen.
- 2 Select "Customize Viewing" using the ADJUST buttons; press ENTER.
- 3 Select "Use Video mute" using the ADJUST buttons; press ENTER.
- 4 Using the ADJUST buttons, select "Automatic" to turn video mute on or "Off" to turn video mute off.
- 5 Press the ENTER or MENU button to return to the "Customize Viewing" menu.

Adjusting the sound

Your TV allows you to customize and adjust the settings of its audio functions. This section gives you descriptions of each audio function, then explains how to adjust the functions.

descriptions of audio functions

The “**Listen to**” function allows you to determine how your TV will receive an audio signal and play back the sound that you hear. You can set this function to “Stereo,” “S.A.P.,” and “Mono.”

- For almost all situations, you should choose “**Stereo.**” With this setting, the TV will play stereo broadcasts in stereo and mono broadcasts in mono. If a channel is broadcasting in stereo, the word “Stereo” will be displayed when you tune to that channel.
- Some TV stations will broadcast a separate audio programming, or S.A.P., signal. This signal is an additional audio soundtrack that you can’t hear during normal TV viewing. An S.A.P. signal might be related to the program you are watching (e.g. a soundtrack in a foreign language), or it might be unrelated (e.g. a weather report). If a channel is broadcasting an S.A.P. signal, the letters “SAP” will appear on-screen when you tune to that channel. Choose “**Listen to: SAP**” to hear the S.A.P. signal.
- Use the “**Mono**” setting if you are receiving a weak audio signal. This setting will reduce background noise. However, with this setting, the TV will only play in mono, even if the program you are watching is in stereo.

▷ **Important:** An on-screen display appears when programs are broadcast in stereo or when a separate audio programming (S.A.P.) is available.

The “**Bass**” function provides a scale that controls the volume of low frequency sound.

The “**Treble**” function provides a scale that controls the volume of high frequency sound.

The “**Balance**” function provides a scale that adjusts the level of sound between the left and right speakers. Adjust the scale until the sound seems to come equally from both speakers.

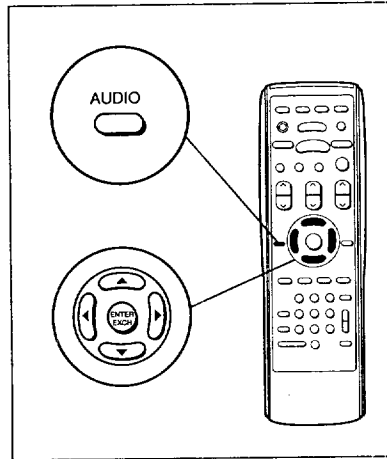
The “**Surround**” function creates simulated stereo and surround effects. You can set this function to “Off,” “Simulate,” or “Hall.”

- Select “**Off**” if you do not want to use any surround effects.
- Select “**Simulate**” if you are watching a non-stereo program; your TV will create a simulated stereo effect.
- Select “**Hall**” if you are watching a stereo program; your TV will use its built-in speakers to create a simulated surround effect, making the sound seem to extend around and behind you.

Adjusting the sound (cont.)

The “**Speaker**” function allows you to turn the TV’s internal speakers on or off.

- Choose “**On**” if you want to play the TV’s sound through the TV’s built-in speakers.
- Choose “**Off**” if you connected your TV to an audio system.



adjusting the audio functions

- ➊ Press the AUDIO button on the remote control repeatedly until the function you want to adjust appears on-screen. (The functions appear at the center of the bottom of the screen.)
- ➋ While the function is still on the screen, use the ADJUST buttons to adjust the function’s setting.
- ➌ The functions will disappear from the screen after a few seconds. (You cannot adjust a function if it is not on the screen.)

Adjusting the picture

Your TV allows you to customize and adjust the settings of its video functions. This section gives you descriptions of each video function, then explains how to adjust the functions.

descriptions of video functions

The “**Tint**” function lets you adjust the proportion of red to green in the picture. This determines the delicate tones of color.

The “**Color**” function lets you determine the intensity of the color.

The “**Contrast**” function controls the level of white-to-black in the picture. When contrast is low, you will be able to see the variety of shades in the darker images on the screen. When the contrast is high, the screen’s dark images will appear more uniformly black, but this will also make the colors on the screen seem more vibrant.

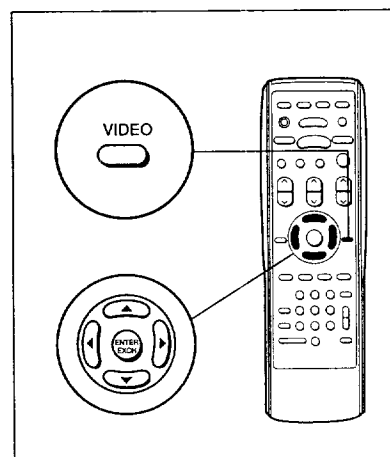
“**Brightness**” controls the overall brightness of the picture.

“**Sharpness**” adjusts the detail and clarity of the picture.

The “**Color temp**” (**Color temperature**) function allows you to set how the TV will display white images.

- With the “**Low**” setting, white images on-screen will have a yellow cast to them.
- With the “**High**” setting, white images on-screen will have a blue cast to them.
- With the “**Middle**” setting, white images on-screen will be balanced between yellow and blue.

The “**CC**” function controls the closed caption decoder. See page 57.



adjusting the video functions

- 1 Press the VIDEO button on the remote control repeatedly until the function you want to adjust appears at the bottom of the center of the screen.
- 2 While the function is still on the screen, use the ADJUST buttons to adjust the function.
- 3 The functions will disappear from the screen shortly. (You cannot adjust a function if it is not on the screen.)

Using the closed caption decoder

Many broadcasters now supply closed captioning information along with their regular broadcasts. Your TV can decode that information and display it on the TV screen.

There are two types of captioning that broadcasters can send: “**standard**” and “**text**.”

Standard captioning is related to the program that is being shown. Standard captioning usually follows the dialogue of the characters on-screen.

Text captioning often contains information such as weather or news. Text captioning blocks out your view of the program you are watching.

Your TV can decode four different “standard captioning” signals and four different “text captioning” signals on each TV channel. However, each station may be broadcasting only one or two captioning signals, or none at all.

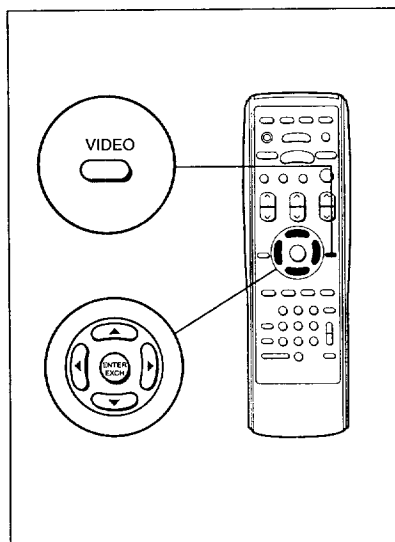
When setting the decoder you can choose:

- to display one of four “standard captioning” signals (**CC** :1, **CC** :2, **CC** :3, **CC** :4),
- to display one of four “text captioning” signals (**CC** : Text 1, **CC** : Text 2, **CC** : Text 3, **CC** : Text 4),
- to display captions when muting (**CC** : When Muting),
- or to turn the captions off (**CC** : Off).

If you select “ **CC** : When Muting,” the standard captioning signal (**CC** :1) will appear whenever you use the MUTE button.

- ▷ **Important:** If you set the decoder to a “standard” caption setting and tune to a broadcaster that is not sending a caption signal, no captions will appear.
- ▷ **Important:** If you set the decoder to a “text” setting and tune to a broadcaster that is not sending a text signal, a large black rectangle will block your screen.
- ▷ **Important:** The content of captions are determined by the broadcaster. If your captions show strange characters, misspellings, or odd grammar, it is not a malfunction of the TV.

Using the closed caption decoder (cont.)



adjusting the closed captioning decoder

When adjusting the closed caption decoder, you can use the buttons on the remote control or on the control panel.

To use the closed caption decoder:

- 1 Press the VIDEO button until the closed captioning display appears on the screen.
- 2 Press the ADJUST buttons to select the captioning setting you want.

(See the previous page for an explanation of the caption settings.)

You can turn captions off by selecting the “off” setting, or by pressing the HOME button on the remote control during normal TV viewing.

uses for closed captioning

Closed captioning was initially designed so that those with hearing difficulties could better enjoy viewing television. However, closed captioning can also be used in other ways, such as:

- helping children learn to read,
- learning a foreign language, and
- using the television without disturbing others.

▷ **Important:** If you cannot display any captions on the screen, please keep in mind that not all broadcasters, video tapes, or laserdiscs supply closed caption signals.

Additionally, captions might not appear:

- if you are playing a video tape that is worn or deteriorated, or
- if you are starting to play a laserdisc from still or search mode.

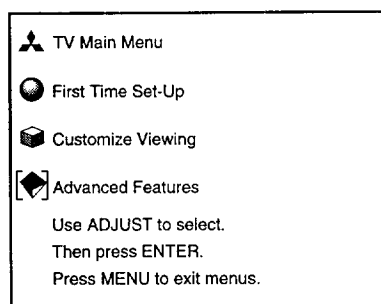
◆ Using the Advanced Features

This section explains how to use some of the more advanced functions. You'll learn about:

- **Setting the timer,**
- **Using the parental lock,**
- **Using the Super Quick View tuning, and**
- **Selecting an advanced PIP function.**

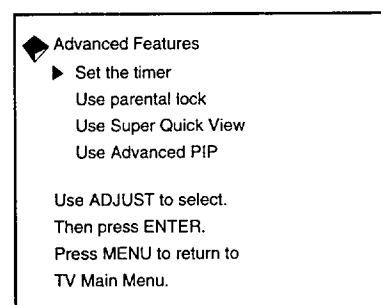
Setting the timer

This special feature allows you to program the TV to turn on automatically at a preset time. To set the timer:

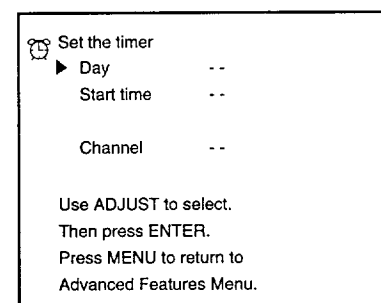


1 Press the MENU button on the remote control. The TV Main Menu will appear on the screen.

2 Select “Advanced Features” using the ADJUST buttons; press ENTER.



3 You will see the “Advanced Features” screen. Select “Set the timer” using the ADJUST buttons; press ENTER.



4 Use the ADJUST buttons and the ENTER button to set Day, Start time, and Channel.

After setting the timer, make sure that the program timer indicator is lit. The indicator will light in orange when the TV is turned on and light in red when the TV is turned off. The indicator will light in green when using the menus, or when you have locked the TV.

If you press the CANCEL button while setting the timer, the arrow will move to the previous item. To clear the timer, press the CANCEL button with the arrow at the “Day” position.

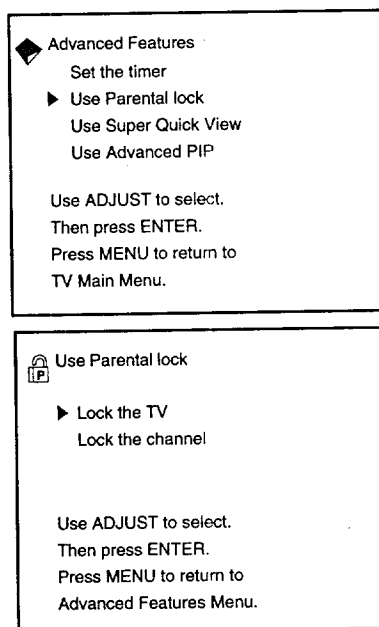
▷ **Important:** When the timer turns the TV on, the display will flash as a warning. If you do not press any TV function buttons within about 5 minutes, the TV will automatically turn off. Press a TV function button (such as the display button) to keep the TV on and turn off the flashing display.

Using the parental lock

This special feature allows you to lock the entire TV or lock an individual channel. (You cannot lock the TV and lock an individual channels at the same time.) When you turn on the lock, you enter a 4-digit secret code that will allow you to turn off the lock later.

If you try to turn on a locked TV or view a locked channel, you will see a message asking you to enter the secret code. If you don't enter the code within five minutes, the TV will turn off or tune to an unlocked channel.

If you enter the secret code, the message will disappear and the lock will be turned off temporarily. However, the TV or channel will be locked again after you turn off the TV. This will continue until you turn the lock off permanently. To turn the lock off permanently, follow the procedure later in this section.



using parental lock


- 1 Press the MENU button. The TV Main Menu will appear.
- 2 Select "Advanced Features" using the ADJUST buttons; then, press ENTER.
- 3 Select "Use parental lock" using the ADJUST buttons; then, press ENTER.
- 4 Select "Lock the TV" or "Lock the channel" using the ADJUST buttons; then, press ENTER.

▷ **Important:** If you want to lock a particular channel, tune the TV to that channel before you set the lock.


▷ **Important:** If you turn the parental lock on, you cannot use the timer.

Using the parental lock (cont.)


locking the TV

 Lock the TV

The lock is now off.
Enter your personal code
using NUMBER buttons.
Then press ENTER
to set the lock.
Press MENU to return to
Advanced Features Menu.

 Lock the TV
▶ Start : 2:00pm
End : 3:00pm

Use ADJUST to select.
Then press ENTER.
Press CANCEL to clear.
Press MENU to return to
Advanced Features Menu.

 Lock the TV
Start : 2:00pm
▶ End : 3:00pm

Use ADJUST to select.
Then press ENTER.
Press MENU to return to
Advanced Features Menu.

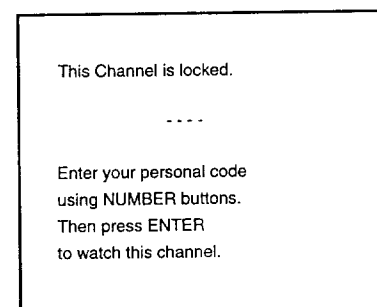
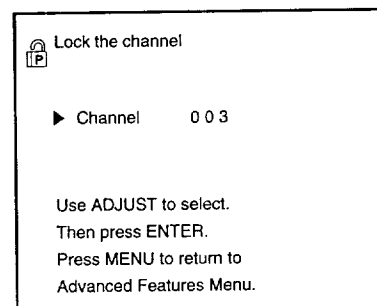
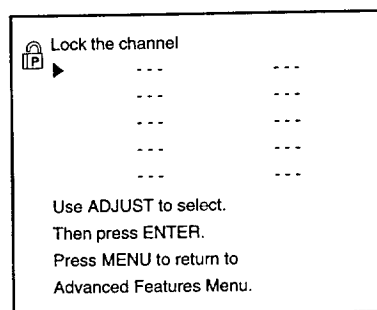
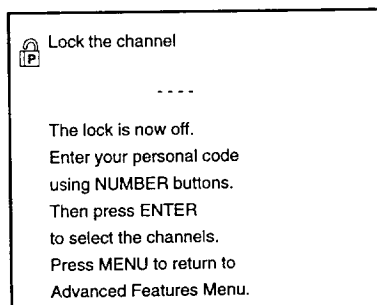
This TV is locked.

Enter your personal code
using NUMBER buttons.
Then press ENTER
to watch this TV.

- The message for locking the TV will appear.
- Enter a four-digit secret code using the number buttons (0-9); then, press the ENTER button.
- Use the ADJUST buttons to select “Start”; press ENTER.
- Use the ADJUST buttons to set the time at which you want the TV lock to turn on. Press ENTER.
- Use the ADJUST buttons to set the time at which you want the TV lock to turn off. Press ENTER. If you want the TV lock to be in effect all the time, set the same “End” time as you set for the “Start” time.
- Press HOME to exit the menus.
- When you turn on a locked TV, you will be asked to enter your four-digit secret code. Enter the code to temporarily disable the lock. The lock will be enabled again when you turn the TV off.

▷ **Important:** Any lock that has been set will continue to work even if the clock has lost its time.

locking channels



- The message for locking a channel will appear.
- Enter a four-digit secret code using the number buttons (0-9); press ENTER.
- You will see the channel lock set-up screen. Use the ADJUST buttons to select a position. Press ENTER.
- Use the ADJUST button to choose the channel you want to lock. Press ENTER.
- Repeat the steps above to lock additional channels. When you are finished, press the HOME button to turn off the menus.
- When you try to view a locked channel, you will be asked to enter your four-digit secret code. Enter the code to temporarily disable the lock. The lock will be enabled again when you turn the TV off.

Using the parental lock (cont.)

Parental lock (TV)

Now, the lock is on.
Enter your personal code
using NUMBER buttons.
Then press ENTER to change
the lock.
Press MENU to return to the
Advanced Features Menu.

Use Parental lock (Channel)

Now, the lock is on.
Enter your personal code
using NUMBER buttons.
Then press ENTER to turn
the lock off.
Press MENU to return to
Advanced Features Menu.

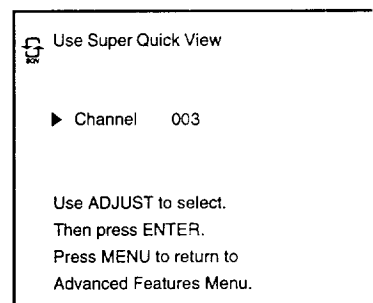
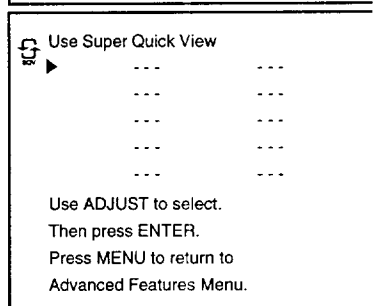
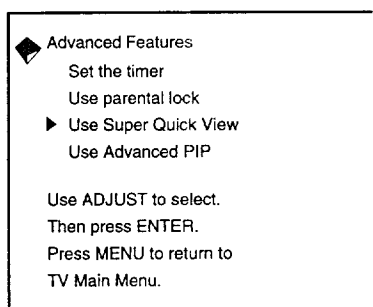
canceling the parental lock

- 1 Press the MENU button. The TV Main Menu will appear on the screen.
- 2 Select "Advanced Features" using the ADJUST buttons; press ENTER.
- 3 Select "Use parental lock" using the ADJUST buttons; press ENTER.
- 4 Use the ADJUST button to select the lock you want to cancel. Press ENTER.
- 5 Enter the four digits of your secret code using the number buttons (0-9); press ENTER.
- 6 Press the MENU button to return to the "Advanced Features" menu.

▷ **Important:** If you forget your four-digit secret code, please see page 85.

Using the Super Quick View tuning

Super-Quick-View allows you to cycle through a list of up to ten channels with the SQV button. You use the menus to add channels to the list or to remove channels from the list. You can also add channels to the list using only the remote control.



customizing the Super Quick View list with the menus

- 1 Press the MENU button on the remote control. The TV Main Menu will appear on the screen.
- 2 Select “Advanced Features” using the ADJUST buttons; press ENTER.
- 3 Select “Use Super Quick View” using the ADJUST buttons; then, press the ENTER button.
- 4 Use the ADJUST buttons to select a position in the list; press ENTER.
- 5 Use the ADJUST buttons, CHANNEL buttons or number buttons to add a channel to the list; press ENTER. You can clear a channel by pressing the CANCEL button. Repeat these steps to add channels to the Super Quick View memory.
- 6 Press the MENU button to exit this menu.

adding channels to the list with the remote control

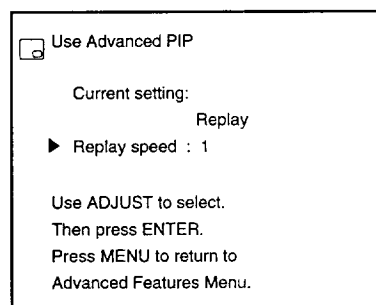
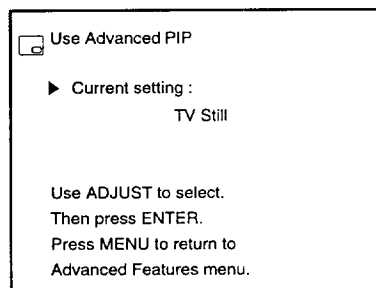
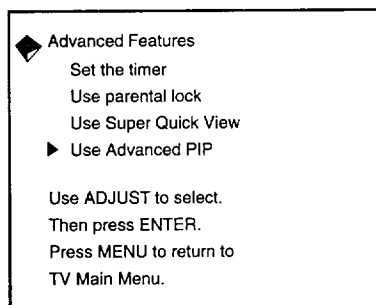
- 1 Use the channel controls to tune the TV to the channel you want to add to the list.
- 2 Press and hold the SQV button for about 2 seconds. When you release the button, the letters “SQV” will appear under the channel number, indicating that the channel has been programmed into Super Quick View memory.

Selecting an advanced PIP function

When you are using the PIP features, there are special functions you can use. Before using these advanced functions, you need to choose one in the menu. These advanced functions are:

- TV Still,
- Snap-shot, or
- Replay.

In “TV Still,” the PIP image switches between still and moving. In “Snap-shot,” you can view and move several frozen PIP images. In “Replay,” you can view still PIP images in sequence for a “strobe” animation effect. These images will appear in sets of three (from a total of seven stored images) at the speed you select. (See “Using the Advanced Picture-in-Picture (PIP) Modes,” page 72.)



❶ Press the MENU button on the remote control. The TV Main Menu will appear on the screen.

❷ Select “Advanced Features” using the ADJUST buttons; press ENTER.

❸ Select “Use Advanced PIP” using the ADJUST buttons; press ENTER.

❹ Use the ADJUST buttons to select the advanced feature you would like to use: TV Still, Snap-shot, or Replay. Press ENTER.

• When you select “Replay,” the next option will be “Replay speed.” Use the ADJUST buttons to set the replay speed from 1 to 9. (1=short interval and 9=long interval.) Press ENTER. (See “Using the Replay feature” on page 78 for more information.)

❺ Press the MENU button to return to the “Advanced Features” menu.



In addition to the basic and advanced features explained in the previous chapter, this TV offers the user several special features not generally available on other brand TVs. This chapter will explain how to use these distinctive features. It contains the following topics:

- ◆ **Understanding the On-Screen Displays**
- ◆ **Using the Off-Timer**
- ◆ **Using the Advanced Picture-in-Picture (PIP) Modes**

◆ Understanding the On-Screen Displays

Your TV provides an on-screen summary of the current settings for the TV, as well as the information related to Extended Data Services (XDS). XDS allows broadcasters to supply you with channel information, program information, and the current time. To view this information, press the display button (DISPLAY) on the remote control repeatedly. This section describes the displays in the order that they occur.

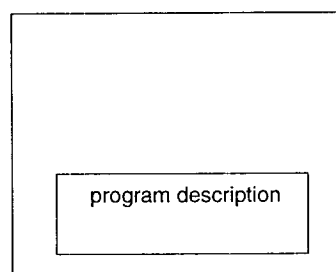
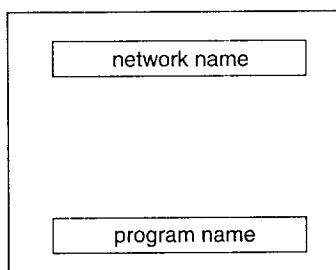
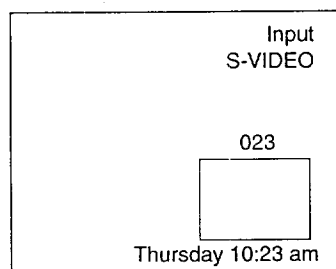
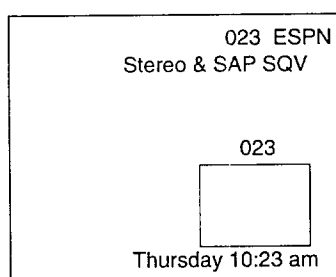
The first time you press DISPLAY, you will see a display like this, if your main source is an antenna:

OR

The first time you press DISPLAY, you will see a display like this, if your main source is an input:

The second time you press DISPLAY, you will see a display like this:

The third time you press DISPLAY, you will see a display like this:



The first setting shows:

- channel number,
- the call letters for this channel,
- stereo and/or SAP are available for reception on this channel,
- this channel is programmed into Super Quick View memory,
- PIP input source (when a PIP image is showing),
- current day of the week, and
- time.

The second setting shows:

- the external input source (or input name),
- an S-Video cable has been connected,
- PIP input source (when a PIP image is showing),
- current day of the week, and
- time.

The third setting shows where the network name and program name will appear if a broadcaster is supplying information via XDS.

The fourth setting shows where the program description will appear if a broadcaster is supplying that information via XDS.

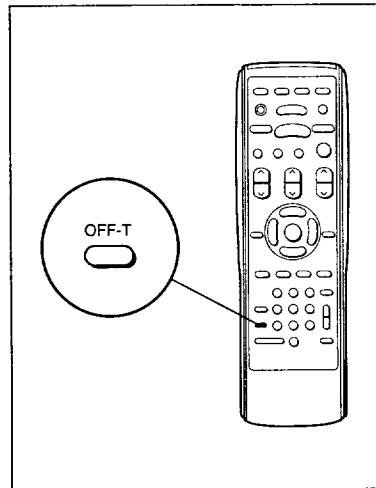
▷ **Important:** If the channel you are watching does not supply information via XDS, an error message will appear (“No name available,” “No description available”), and the “call letters” will not appear.

◆ Using the Off-Timer

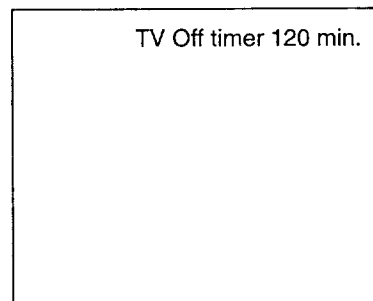
This special function allows you to set the TV to turn off automatically. You can set the TV to turn off after a period of time ranging from 10 to 120 minutes (in ten minute intervals). In this section you'll learn:

- **Setting the off-timer, and**
- **Changing or canceling the off-timer.**

Setting the off-timer

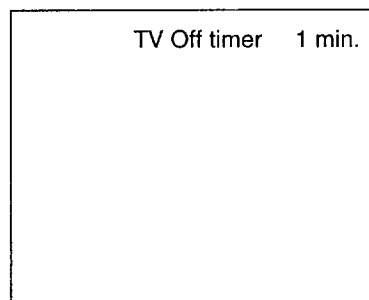


- 1 Press the off-timer button (OFF-T) on the remote control.

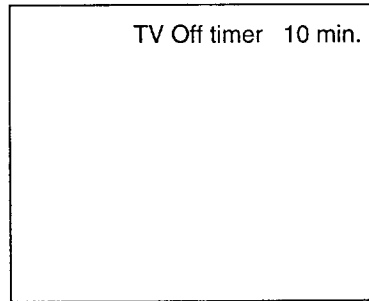


- 2 Select how long you want the TV to stay on by repeatedly pressing the off-timer button (OFF-T). The time will decrease in 10 minute intervals each time you press the button.
- 3 If you later want to check on how much time is left in the off-timer, press the off-timer button (OFF-T) once. The on-screen display reads "off-timer" and shows the amount of time remaining.

▷ **Important:** During the last minute before the TV is set to turn off, "Off-timer 1 min." will flash in red to remind you that the off-timer is set.



Changing or canceling the off-timer



- ① Press the off-timer button (OFF-T) on the remote control. An on-screen display will indicate the amount of time remaining until the TV will turn off.
- ② Continue pressing the off-timer button (OFF-T) repeatedly to change the remaining time or cancel the off-timer. The off-timer is canceled when “— —” appears instead of the remaining time.

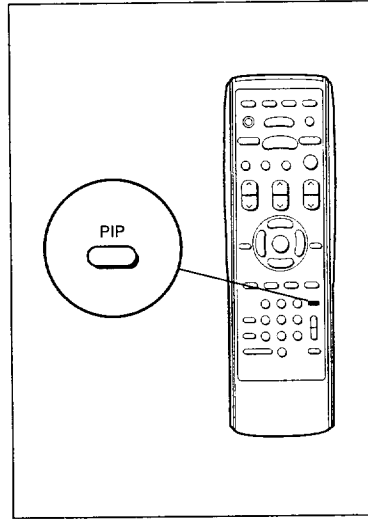
◆ Using the Advanced Picture-in-Picture (PIP) Modes

The special features of this TV include the advanced picture-in-picture (PIP) modes, which allow you to view and manipulate the images of two different sources at the same time. In this section you'll learn about:

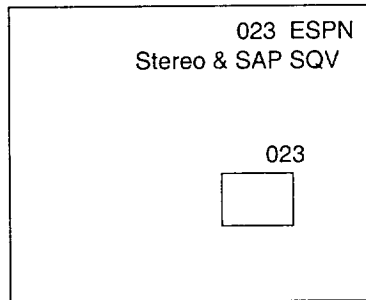
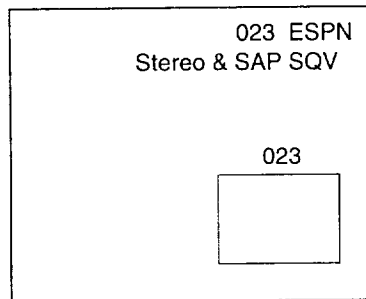
- **Activating the PIP image,**
- **Selecting the source of the PIP image,**
- **Changing channels while using the PIP modes,**
- **Exchanging the PIP image and the main image,**
- **Moving the PIP image,**
- **Freezing the PIP image,**
- **Using the Snap-shot feature, and**
- **Using the Replay feature.**

▷ **Important:** You must have a VCR connected to the TV to see two different live pictures when using PIP. The instructions for connecting your VCR are described in Chapter 2.

Activating the PIP image



- 1 Select the number of the TV channel you want to view by using the channel control (CHANNEL).
- 2 Press the PIP button. A PIP image will appear in the bottom right corner of the screen.



- 3 Press the PIP button again, within 10 seconds; the PIP image will change to a smaller size.

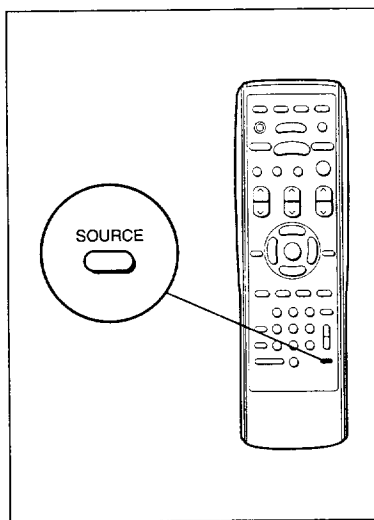
(If you wait longer than 10 seconds, the PIP image will disappear when you press the PIP button.)

- 4 Press the PIP button once again to cancel the PIP image.

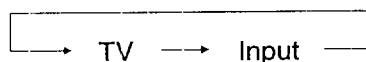
▷ **Important:** When the main image is black and white, the PIP image will also appear in black and white.

▷ **Important:** If you move the PIP image and then turn it off, it will remain in its new position when you turn it on again.

Selecting the source of the PIP image

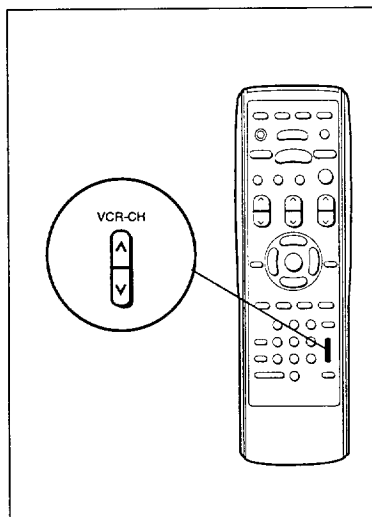


- 1 Turn your VCR on and select a channel on the VCR that is different than the channel you see on your TV screen.
- 2 Press the source button (SOURCE) on the remote control repeatedly to select the source of the PIP image: TV or Input.
- 3 The PIP image will change as follows.



▷ **Important:** To change the input of the background (main) image while a PIP image is on the screen, press the input button (INPUT) on the control panel or on the remote control.

Changing channels while using the PIP modes



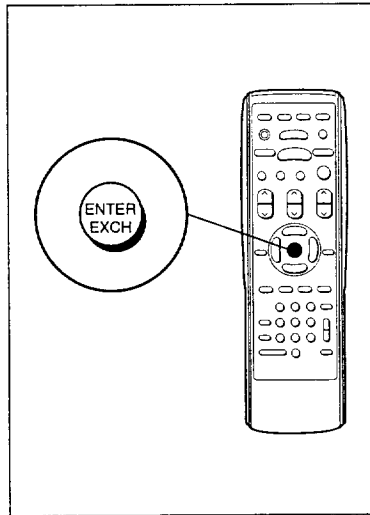
You can use the buttons on the remote control to change the channels of both the main image and the small PIP image, as if your TV had two-tuners.

- 1 Point the remote at the VCR and press the VCR channel button (VCR-CH) on the remote control to change the channel of the PIP image.
- 2 Press the CHANNEL button on the remote control to change the channel of the main image.

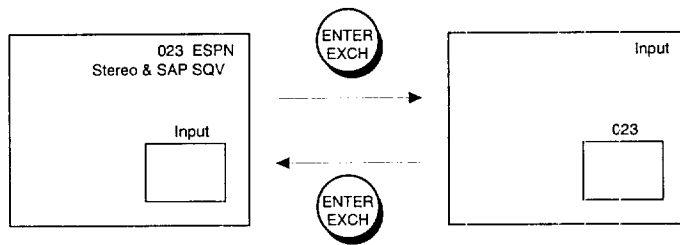
▷ **Important:** When the source of both the main image and the PIP image is the TV, the VCR channel (VCR-CH) button will not change the channels of the main image or the PIP image.

▷ **Important:** You must have set up the “VCR-A” layer of your remote for this button to work correctly. (See pages 38–40.)

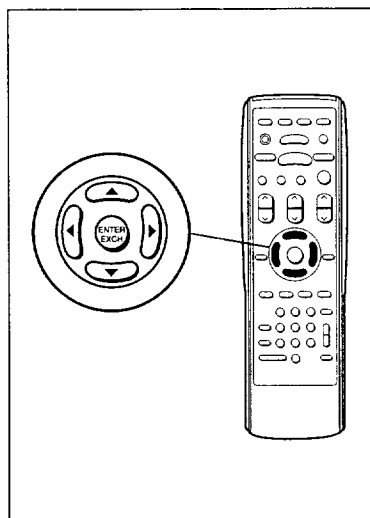
Exchanging the PIP image and the main image



Press the ENTER button to exchange the contents of the main (background) image and the PIP image.



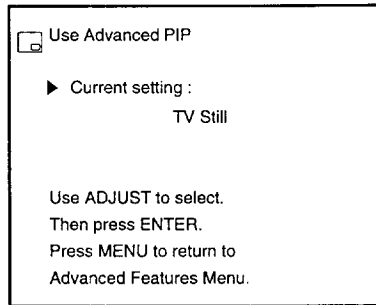
Moving the PIP image



Press the ADJUST (up/down) buttons or right/left buttons to move the PIP image.

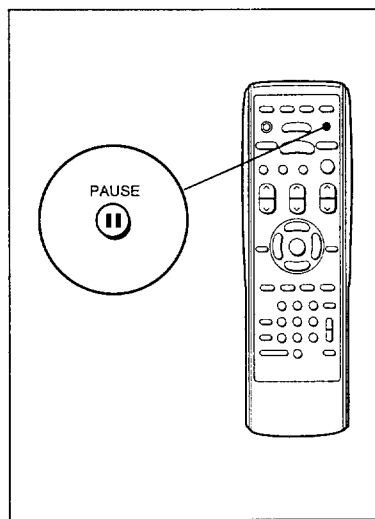
▷ **Important:** If you move the PIP image and then turn it off, it will remain in its new position when you turn it on again.

Freezing the PIP image



❶ Select “Use Advanced PIP” in the “Advanced Features” menu and set it to “TV Still.” (See “Selecting an advanced PIP function,” page 66.)

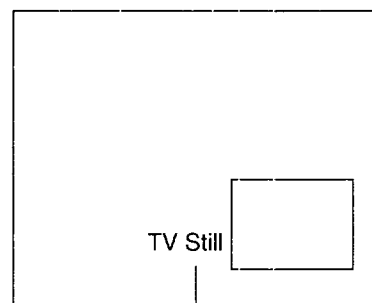
❷ Use the MENU button to return to the normal picture.



❸ Press the PAUSE button to freeze the PIP image on the screen.

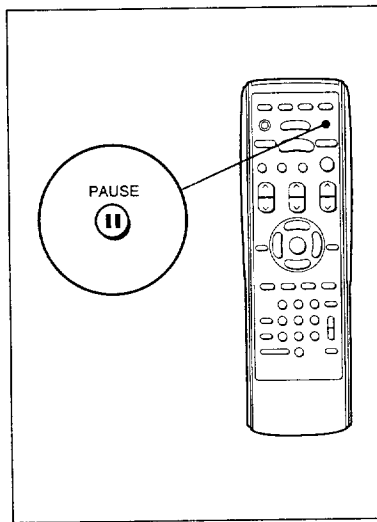
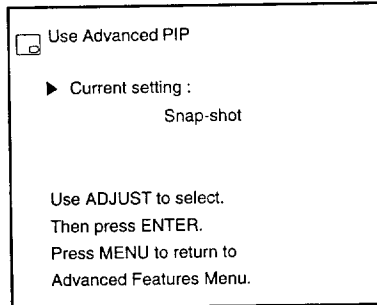
❹ Press PAUSE again to return the PIP image to a “live” picture.

>**Important:** When you press the pause button while viewing the normal picture, the PIP image will appear and be frozen.



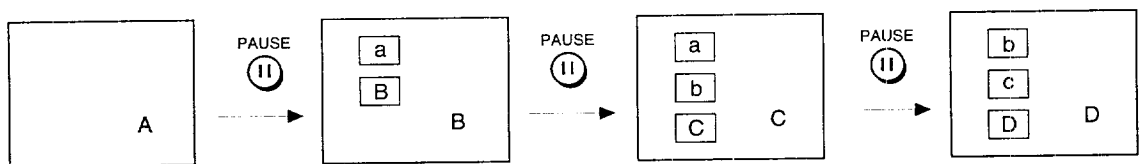
disappears after a few seconds

Using the Snap-shot feature

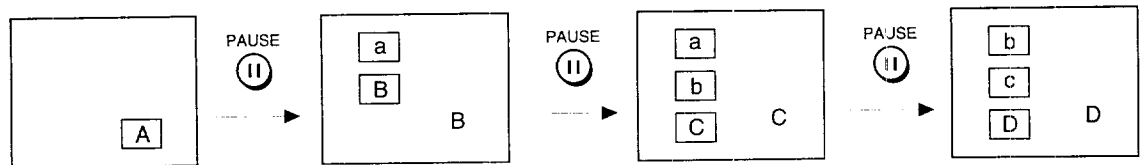


- ❶ Select "Use Advanced PIP" in the "Advanced Features" menu and set it to "Snap-shot." (See "Selecting an advanced PIP function," page 66.)
- ❷ Use the MENU button to return to the normal picture.
- ❸ Press the PAUSE button once; a frozen PIP image and a moving PIP image will appear.
- ❹ Press the PAUSE button again; a third PIP image will appear, moving. The previous two PIP images will be frozen.
- ❺ Each time you press the PAUSE button, the PIP images will shift upwards one by one: the top image will be replaced by the second image, the second image will be replaced by the third, and a new moving image will appear in the third space.
- ❻ To cancel the PIP image, press the PIP button twice.

if the PIP image is off



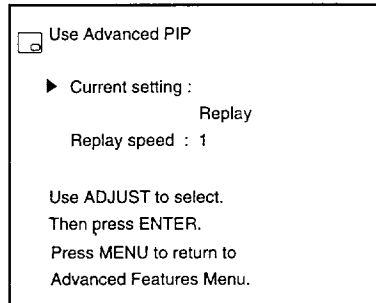
if the PIP image is on



*A, B, C, D: the moving images

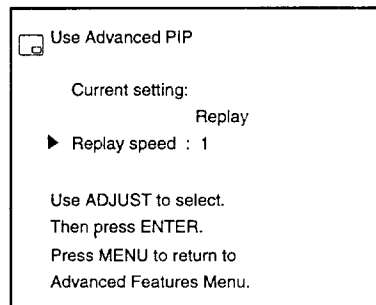
*a, b, c, d: the frozen images of A, B, C, and D at the instant the PAUSE button is pressed.

Using the Replay feature



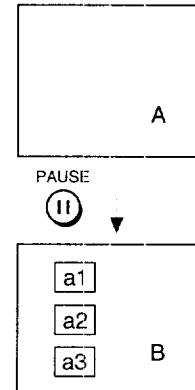
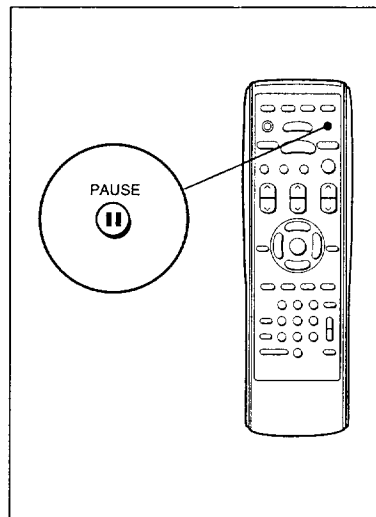
1 Select "Use Advanced PIP" in the "Advanced Features" menu and set it to "Replay." (See "Selecting an advanced PIP function," page 66.)

2 Set the replay speed between 1 (short interval) and 9 (long interval).



3 Use the MENU button to return to the normal picture.

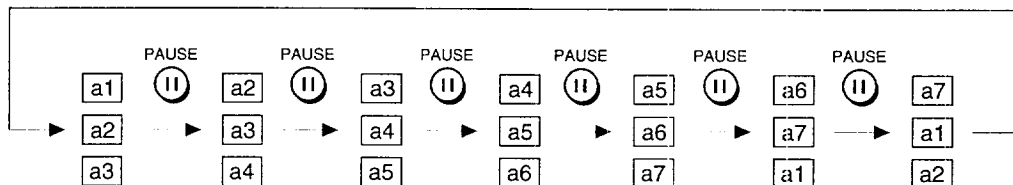
4 Press the PAUSE button. The TV will memorize seven frames of video from the main image and display the first three of these frames as PIP images. (The interval between the frames is determined by the replay speed set in step 2.)



5 Each time you press the PAUSE button, the memorized frames will shift upwards.

6 To cancel the PIP images, press the PIP button twice.

*a1 - a7 : memorized frames





CHAPTER FIVE
Troubleshooting

Even though you're now familiar with the basic and advanced operations of the TV, you may run into trouble from time to time as you become accustomed to the TV. This chapter offers solutions to some of the common problems you may encounter. We suggest that you consult this chart before contacting a Mitsubishi service representative.

Troubleshooting (cont.)

Problems	Possible Solutions	For More Information
<ul style="list-style-type: none">• The remote control doesn't work.	<ul style="list-style-type: none">• Check that the batteries are installed correctly.• Check that the select button is set to "TV."• Be sure that you are pointing the tip of the remote control toward the TV from a distance of no more than 20 feet.	<ul style="list-style-type: none">• See "Getting ready to use the remote control" in Chapter 1 for an explanation of how to install batteries in the remote control.• See "Remote control buttons and functions" in Chapter 1, which explains where the select buttons are located.• See "Getting ready to use the remote control" in Chapter 1, which contains pointers for using the remote control.
<ul style="list-style-type: none">• The TV takes several seconds to respond to button commands.	<ul style="list-style-type: none">• Use the ENTER button to avoid delays.	<ul style="list-style-type: none">• See "Changing channels" in Chapter 3, which explains the function of the ENTER button.
<ul style="list-style-type: none">• You can't access a channel.	<ul style="list-style-type: none">• Be sure that the channel you want to view is programmed into memory.• Check that the TV is tuned to the correct input source (antenna) for that channel.	<ul style="list-style-type: none">• See "Memorizing channels" in Chapter 3, which explains how to program channels into the TV's memory.• See "Selecting the input source" in Chapter 3, which explains how to change the input source.
<ul style="list-style-type: none">• You can't see a different picture in the reduced PIP image.	<ul style="list-style-type: none">• Use the SOURCE button to select the picture from your VCR.• Turn on your VCR and select a channel different from the one on your TV.	<ul style="list-style-type: none">• See "Using the Advanced Picture-in-Picture (PIP) Modes" one page 72.

Problems	Possible Solutions	For More Information
<ul style="list-style-type: none"> • On-screen displays appear each time you adjust a function. 	<ul style="list-style-type: none"> • This is part of the normal operation of the TV. 	<ul style="list-style-type: none"> • See “Understanding the On-Screen Displays” in Chapter 4 for a full explanation of the on-screen displays.
<ul style="list-style-type: none"> • There’s no sound even when the volume is turned up. 	<ul style="list-style-type: none"> • Check that the MUTE button isn’t on. • The TV’s reception mode may be set to “separate audio program” (S.A.P.). 	<ul style="list-style-type: none"> • See “Remote control buttons and functions” in Chapter 1, which explains the location and function of the MUTE button. • See “Adjusting the sound” in Chapter 3, which explains how to select the appropriate reception mode.
<ul style="list-style-type: none"> • You forget the code you used to set the parental lock. 	<ul style="list-style-type: none"> • Use the alternate procedure that doesn’t require the use of the code. 	<ul style="list-style-type: none"> • See the Appendix, “Procedure for Bypassing the Parental Lock.”
<ul style="list-style-type: none"> • You can’t program the TV to turn on automatically. 	<ul style="list-style-type: none"> • The TV may be locked. 	<ul style="list-style-type: none"> • See “Using the parental lock” under “Using the Advanced Features” in Chapter 3.
<ul style="list-style-type: none"> • The sound doesn’t match the image on screen. 	<ul style="list-style-type: none"> • The TV’s reception mode may be set to “separate audio program” (S.A.P.). 	<ul style="list-style-type: none"> • See “Adjusting the sound” in Chapter 3, which explains how to select the appropriate reception mode.
<ul style="list-style-type: none"> • There is a large black rectangle on the screen. 	<ul style="list-style-type: none"> • The TV has been set to “text” mode, but there is no text information being broadcast. 	<ul style="list-style-type: none"> • See “Using the closed caption decoder” under “Getting started” in chapter 3.

Caution and care

- **Warning:** Don't leave stationary images on-screen for more than 10 minutes. These images can scar the TV, causing permanent damage to the picture tube. Some examples of stationary images are:
- stock-market reports,
 - station logos (especially bright ones),
 - video game displays,
 - shopping channel displays,
 - the television's own on-screen displays.

- ▷ **Important:** If you plan to place speakers next to the TV, make sure they are magnetically shielded. Ordinary speakers will cause distortion in the picture due to their strong magnets. This distortion, however, will not harm the picture tube.

For maximum enjoyment and safe operation of your MITSUBISHI Color TV, please read the "IMPORTANT SAFEGUARDS" carefully and apply them properly.

- ▷ **Important:** To keep your TV from toppling in the event of an earthquake, you can use the clamp attached to the back of the television to secure it to the wall. Simply run a cord or rope through the clamp, then attach the rope to the wall directly behind the television.

Cleaning

Normally, light dusting with a non-scratching duster will keep your TV clean.

If you want to wipe down your TV, turn it off and unplug it. Then, wipe it gently with a soft cloth slightly moistened with water. You can add a few drops of mild liquid detergent to the water for oily dirt.

DO NOT allow liquid to enter the TV through the ventilation slots.

DO NOT use strong or abrasive cleaners.

DO NOT use spray liquids or cleaners directly on the TV's surface.

DO NOT scrub or rub the TV harshly. Wipe gently.

Calling for service

If you are unable to correct a problem with your TV, consult your MITSUBISHI dealer or MITSUBISHI Authorized Warranty Service Center.

Do not adjust any controls not described in this owner's guide.

Do not remove the protective back cover of this unit.

If you see one of the following display on your screen, you should not change any settings. These are special displays used by the factory.

```
▶ Initial
Hotel      : Off
Power res  : Off
Ant       : 1
Input     : 1
When mute : On
```

```
▶ Initial      3 dia      : On
E2RESET       CCD        : On
Hotel         : Off      Auto clock : On
Power res     : Off      System1A  : Off
Ant           : 1       PIP        : On(or Off)
Input        : 1       Mntr. fix  : Off
When mute    : On
```

```
VCH
0 0 COL 63
```

If one of these displays appears, make sure that all of the on/off settings are the same as the illustrations above and then turn the TV off. If any of the settings are different from the illustration above, turn the TV off and consult your MITSUBISHI dealer or MITSUBISHI Authorized Warranty Service Center.





Cut along dotted line and file after reading.

After you lock the TV, you will need the secret code in order to:

- view the locked TV, or
- cancel the lock.

If you forget the code, you can view the locked TV without entering the code. To do this, simply press the buttons on your remote labeled “QV” and “9” at the same time.

▷**Important:** Unlocking with this procedure is only temporary. To cancel the lock completely, follow the procedure below:

- ➊ Press the “QV” button and the “9” button on the remote control at the same time. This will unlock the TV.
- ➋ Press the MENU button to view the main menu. Use the ADJUST button to select “Advanced Features.” Press ENTER.
- ➌ Use the ADJUST button to select “Use Parental Lock.”
- ➍ Use the ADJUST button to choose the lock you want to turn off. If the TV is locked, select “Lock the TV”, OR: If the channel was locked, select “Lock the Channel”.
- ➎ If you selected “Lock the TV”, you must press the CANCEL button to clear both the start and the end time. Then press HOME to return to viewing the TV, OR: If you selected “Lock the Channel”, you must press the ADJUST, ENTER and CANCEL buttons to clear every channel from the screen. Then press HOME to return to viewing the TV.



A

A/V reset button 13
 adding channels 50
 adjust buttons 18, 19
 advanced features 59
 advanced PIP 66
 antenna
 connecting 25, 27
 terminal 22
 audio
 adjusting 54
 button 18
 input 23
 output 22
 system, connecting 34
 auto clock 47

B

back panel 22
 balance 54
 bass 54
 batteries 14
 brightness 56

C

cable
 connecting 25, 26, 28, 31
 cable box
 codes 39
 connecting 26, 31
 cancel button 18
 care 82
 CC 56, 57
 channel
 adding/deleting 50
 changing 43
 changing PIP 74
 control 13, 17
 lock 63
 memorizing 49
 programming 49
 clock, setting 47
 closed captions 56, 57
 color 56
 color purity
 adjusting 37
 buttons 13

color temperature 56
 connecting
 antenna 25, 27
 audio system 34
 cable 25, 26, 28, 31
 decoder box 26, 31
 TV 21
 VCR 28, 31
 contrast 56
 control panel, overview 12

D

decoder box
 codes 39
 connecting 26, 31
 degauss button 13
 deleting channels 50
 direction switch 13
 display button 19
 displays 68

E

enter button 17, 19
 español 52
 exchange button 17, 19
 exchanging, PIP image 75

F

features
 advanced 59
 special 6, 67
 français 52
 freezing PIP 76
 front panel 12

H

home button 19

I

important safeguards 3
 input button 13, 17
 input
 audio/video 23
 renaming 51
 selecting 42
 installing batteries 14

L

language, selecting 52
 lock
 bypassing 85
 channel 63
 TV 62

M

memorizing channels 49
 menu button 18
 menu language, selecting ... 52
 menus, understanding 46
 mono 54
 moving the PIP image 75
 mute control 17
 mute, video 53

N

number buttons 19

O

off-timer 68
 off-timer button 19
 on-screen displays 68
 on/off, turning your TV 41
 outputs, audio/video 22
 overview
 back panel 22
 control panel 12
 remote control 14

P

parental lock 61
 pause button 19
 picture, adjusting 56
 PIP (Picture-in-picture) 72
 activating 73
 advanced functions 66
 button 19
 channel 74
 exchanging images 75
 freezing 76
 moving 75
 replay 78
 snap-shot 77
 source 74

power button	13, 17	T	
program timer indicator	13	text	57
programming channels	49	time, setting	47
		timer	60
Q		timer indicator	13
quick view	45	timer, off	69
quick view button	17	tint	56
		treble	54
R		troubleshooting	79
rear panel	22	turning your TV on/off	41
remote control		TV lock	61
buttons	16	TV, connecting	21
overview	14	TV, unpacking	7
using	38		
renaming the input	51	U	
replay	78	unpacking your TV	7
reset, A/V	13		
		V	
S		VCR	
s-video input	23	buttons	17
S.A.P	54	codes	39
safeguards, important	3	connecting	28, 31
select buttons	17	VCR-CH button	19
service	83	video	
setting the clock	47	adjusting	56
sharpness	56	button	18
snap-shot	77	input	23
sound, adjusting	54	mute	53
source button	19	output	22
source, PIP	74	volume control	13, 17
special features	6, 67		
SQV button	17	W	
stereo	54	wake-up timer	60
strength switch	13		
super quick view	45, 65	X	
super quick view button	17	XDS	68
surround	54		

**mitsubishi color television or color monitor
limited warranty**

MITSUBISHI CONSUMER ELECTRONICS AMERICA, INC. ("MCEA") warrants to the original purchaser of this television or monitor if purchased from an authorized MITSUBISHI Audio/Video Dealer that, should it prove defective by reason of improper workmanship and/or material:

- a. **Picture Tube.** For two years from the date of purchase at retail, we will repair or replace, at our option, any defective picture tube without charge for the tube.
 - b. **Other Parts.** For one year from the date of original purchase at retail, we will repair or replace, at our option, any defective part without charge for the part.
 - c. All parts used for replacement are warranted for the remainder of the original warranty period.
 - d. **Labor.** For one year from the date of original purchase at retail, we will provide the labor for a warranty repair by an authorized MITSUBISHI service center without charge.
 - e. **Notice.** To obtain warranty service, you must notify an authorized MITSUBISHI service center of any defect within the applicable warranty time period.
1. TO OBTAIN WARRANTY SERVICE DURING THE FIRST YEAR:

a. Contact your nearest authorized MITSUBISHI service center, whose name and address can be obtained from your MITSUBISHI dealer or by writing or calling MELA at the address and telephone number provided below.

b. Warranty service will be provided in your home or, if required, at an authorized service shop, provided that your television is located within the geographic territory customarily covered by an authorized MITSUBISHI service center. If not, you must either deliver your television to an authorized service location at your own expense, or pay for any travel and/or transportation costs the service center may charge to and from your home. Actual service labor will be provided without charge.

c. Proof of purchase date from an authorized MITSUBISHI Dealer is required when requesting warranty service. Present your sales receipt or other document which establishes proof and date of purchase. **THE RETURN OF THE OWNER REGISTRATION CARD IS NOT A CONDITION OF WARRANTY COVERAGE.** However, please return the Owner Registration Card so that we can contact you should a question of safety arise which could affect you.

2. **AFTER THE FIRST YEAR,** to obtain warranty service for a defective picture tube, you are responsible for delivering the television or monitor to an authorized MITSUBISHI service center at your own expense.

3. **THIS WARRANTY DOES NOT COVER** damage caused by: modification, alteration, repair or service of this product by anyone other than an authorized MITSUBISHI service center; physical abuse to, or misuse of, the product; operation in a manner contrary to the instructions which accompany the product; freight damage; or any damage caused by acts of God such as lightning or fluctuation in electrical power. This warranty also excludes all costs arising from installation, adjustment of user controls, external antenna systems, service of products purchased or serviced outside the U.S.A., initial technical adjustments (set-up) and user-required maintenance. Consult the operating instructions furnished with the product for information regarding user controls.

4. **ANY EXPRESS WARRANTY NOT PROVIDED HEREIN, AND ANY REMEDY WHICH, BUT FOR THIS PROVISION, MIGHT ARISE BY IMPLICATION OR OPERATION OF LAW, IS HEREBY EXCLUDED AND DISCLAIMED. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR ANY PARTICULAR PURPOSE ARE EXPRESSLY LIMITED TO A TERM OF ONE YEAR.**

5. **UNDER NO CIRCUMSTANCES SHALL MELA BE LIABLE TO PURCHASER OR ANY OTHER PERSON FOR ANY INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, WHETHER ARISING OUT OF BREACH OF WARRANTY, BREACH OF CONTRACT, OR OTHERWISE.**

6. Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental, special, or consequential damages, so the above limitations or exclusions may not apply to you.

7. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

8. **BEFORE REQUESTING SERVICE,** please review the instruction booklet to insure proper installation and correct customer control adjustment. If the problem persists, contact your nearest MITSUBISHI Dealer for name(s) of authorized MITSUBISHI Service Center(s). If you are unable to obtain this information, please call 1-800-332-2119, or write us at the address below.

MITSUBISHI CONSUMER ELECTRONICS AMERICA, INC.
P.O. Box 5025
Norcross, GA 30091-5025



RETAIN THIS PORTION FOR YOUR RECORDS

SERIAL NO. _____

CUSTOMER NAME _____

STREET ADDRESS _____

CITY _____ STATE _____ ZIP _____

PHONE () _____ PURCHASE DATE _____ / _____ / _____

MO DAY YR

PLACE OF PURCHASE _____



MITSUBISHI CONSUMER ELECTRONICS AMERICA, INC.

6100 Atlantic Boulevard
Norcross, GA 30071-1305